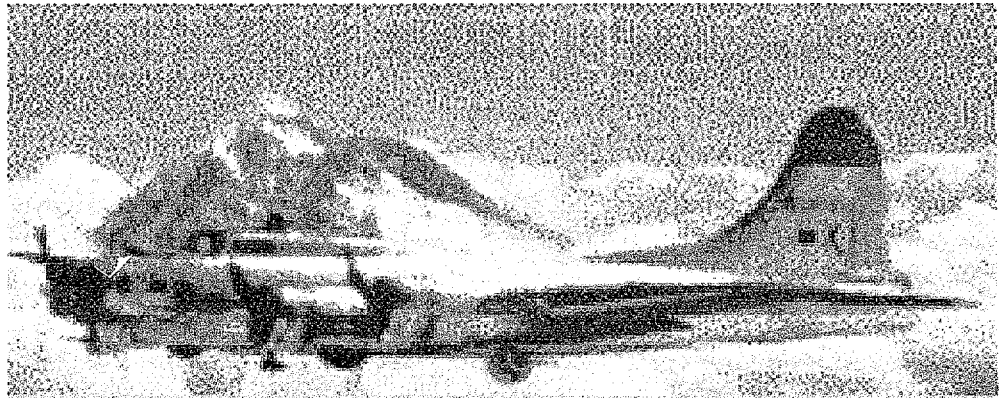


6



WINSLOW-LINDBERGH REGIONAL AIRPORT Winslow, Arizona

AIRPORT MASTER PLAN - 1998 ENVIRONMENTAL FACTORS

INTRODUCTION: THE ENVIRONMENTAL REVIEW PROCESS

The National Environmental Policy Act (NEPA) requires that all new airport construction be evaluated in terms of possible environmental impacts. Thus, it is important in the Master Planning process to identify the environmental issues which may need to be addressed prior to airport development.

Federal actions fall into one of three categories:

- Categorical Exclusions;
- Actions normally requiring an Environmental Assessment (EA); and
- Actions normally requiring an Environmental Impact Statement (EIS).

In general terms, actions categorically excluded are those actions which are found to have no potential for significant environmental impact. The following items would normally be categorically excluded unless extraordinary circumstances are identified by the FAA which would create a requirement for an Environmental Assessment. Extraordinary circumstances include opposition by federal, state or local government agencies, or by a significant number of persons who would be affected by the action, as well as any obvious circumstance which may indicate the potential for environmental impact.

- Runway reconstruction or repair work where the runway's alignment, length, capacity and classification are not affected;
- Construction or repair of taxiways, aprons or loading ramps;
- Installation or upgrade of airfield lighting systems, including runway and taxiway edge lighting systems, runway end identifier lights (REIL), visual

taxiway edge lighting systems, runway end identifier lights (REIL), visual approach aids (VASI, PAPI), rotating beacons, and electrical distribution systems;

- Installation of miscellaneous items including segmented circles, wind or landing direction indicators, weather stations, and fencing;
- Construction or expansion of buildings and passenger handling facilities, including general aviation arrival/departure building and hangars;
- Construction, relocation or repair of entrance and service roads;
- Obstruction removal on airport property;
- Erosion control actions with no off-airport impacts;
- Landscaping or construction of airport jet blast and/or noise mitigation barriers, as well as projects to carry out noise compatibility programs;
- Land acquisitions and/or relocations associated with any of the above listed items.

Federal release of airport land, removal of a displaced threshold, airspace determinations, airport planning projects, noise compatibility programs, acquisition of security equipment required under 14 CFR Part 107 or safety equipment required under 14 CFR Part 139, acquisition of snow removal equipment, airport certifications, and preliminary or tentative engineering or design actions are also categorically excluded.

Actions normally requiring an Environmental Assessment are those which have been found by experience to sometimes have significant environmental impacts. Included actions are:

- Airport location or relocation;
- Construction of a new runway;
- Major runway extension;
- Runway strengthening which would result in a 1.5 Ldn or greater increase in noise over any noise sensitive area located within the 65 Ldn noise exposure contour;
- Entrance or service road development which would adversely affect the capacity of other public roads.
- Land acquisition associated with any of the above-listed items, or land acquisitions which result in relocation of residential units when there is evidence of insufficient replacement dwellings or major disruption of business activities;
- Land acquisition which involves land covered under Section 4(f) of the DOT Act (public owned land from a public park, recreation area or wildlife or waterfowl refuge, or a historical site of local state or national significance);
- Establishment or relocation of an instrument landing system, or an approach lighting system;

- Any action which would effect property included (or eligible for inclusion) on the National Register of Historic Places, property of state, local, or national historical, architectural, archeological, or cultural significance;
- Land acquisitions which involve significant conversion of farmland

Actions determined to have significant impacts during preparation of the Environmental Assessment will be required to be addressed by an Environmental Impact Statement (EIS).

The preparation of the Environmental Assessment is the responsibility of the airport sponsor. Based upon the results of the Environmental Assessment, the FAA would either prepare an Environmental Impact Statement (EIS) or would issue a "Finding OF No Significant Impact" (FONSI).

Federal regulations require that a sponsor seeking a grant for airport improvements must prepare and submit an Airport Layout Plan, showing detailed information regarding the existing and proposed facility, along with an Environmental Assessment prepared in accordance with FAA Order 5050.4, if an assessment is required.

PROBABLE
ENVIRONMENTAL
IMPACTS

The areas of potential impact which must be addressed in an Environmental Assessment, per FAA Order 5050.4 are as follows:

- A. Noise
- B. Compatible Land Use
- C. Social Impacts
- D. Induced Socio-economic Impacts
- E. Air Quality
- F. Water Quality
- G. Impacts upon Public Recreation Areas and Historical/Cultural Resources
- H. Biotic Communities - Flora and Fauna
- I. Endangered and Threatened Species of Flora and Fauna
- J. Wetlands
- K. Floodplains
- L. Coastal Zone Management Programs and Coastal Barriers
- M. Wild and Scenic Rivers
- N. Conversion of Farmland
- O. Energy Supply and Natural Resources
- P. Light Emissions
- Q. Solid Waste Impacts
- R. Construction Impacts

These areas are discussed in the following narrative.

In February of 1998, in order to identify possible areas of environmental impact associated with the proposed program, a number of public agencies were contacted, provided with review materials, and asked to provide input regarding their areas of jurisdiction. The contacted agencies are:

- ▶ Arizona Department of Environmental Quality, Wastewater Construction and Federal Permits Unit
- ▶ Arizona Department of Environmental Quality, Office of Air Quality
- ▶ Arizona Department of Environmental Quality, Office of Water Quality
- ▶ U.S. Army Corps of Engineers
- ▶ Arizona State Parks Department, Historical, Cultural, and Archeological Resources
- ▶ U.S. Fish and Wildlife Service
- ▶ Arizona Game and Fish Department
- ▶ Arizona Department of Water Resources
- ▶ Arizona Commission of Agriculture and Horticulture
- ▶ Arizona State Land Department
- ▶ U.S. Bureau of Land Management
- ▶ U.S. Department of Agriculture, Soils Conservation Service
- ▶ U.S. Department of Agriculture, Farm Services Agency
- ▶ Arizona Department of Transportation, Environmental Planning

Aircraft Noise

A noise analysis is not required by the Federal Aviation Administration for airport proposals which involve utility or transport airports whose forecast annual operations within the period covered by an Environmental Assessment do not exceed 90,000 annual propeller operations or 700 jet operations.

According to the forecasts developed in Section 2, propeller activity will remain below this threshold level during the period under study. However, activity by jet aircraft may exceed 700 annual operations during the planning period. The forecasts do not distinguish between jet and turboprop operations, but indicate the possibility of as many as 3,900 operations by turbine-powered types. Therefore, a noise analysis was undertaken.

The Federal Aviation Administration defines 65 Ldn as the threshold of significance for noise exposure impacts, and requires that the Integrated Noise Model (INM) computer program be used to define noise exposure levels.

The "Ldn" noise metric ("Day-Night Average Sound Level" - sometimes called "Dnl") is defined as the 24 hour average of an energy summation of A-weighted decibel levels (dbA), with night operations weighted by a 10 decibel penalty.

The Department of Housing and Urban Development (HUD), has published noise abatement and control standards in its Circular 1390.2 in an effort to separate uncontrollable noise sources from residential and other noise sensitive areas, and to prohibit HUD support for construction within sites determined to have unfavorable

noise exposure conditions. A rating of less than Ldn 65 is considered acceptable for residential development. Ldn 65 to 75 is defined as discretionary and a rating of more than Ldn 75 is considered unacceptable for residential development.

The Arizona Department of Transportation, Aeronautics Division (ADOT-Aeronautics) has requested that the 55 Ldn contour be generated in order to give an indication of future areas of potential noise exposure.

The INM noise modeling undertaken for Winslow included analysis of four (4) scenarios. Because of limitations in the noise modeling software and in the available data certain assumptions were made for all four scenarios, as follows:

- ▶ Runway use was estimated by reference to the wind data (see Section 1, tabulation on page 1-29).
- ▶ Landing tracks for small aircraft (those with takeoff weights of 12,500 pounds or less) were modeled based on approximate standard traffic patterns for uncontrolled fields (*Figure 6-5 illustrates the landing and departure tracks that were used in the analysis*).
- ▶ Landing tracks for large aircraft (including U.S. Forest Service activity) were laid out to avoid extended overflight of densely populated areas.
- ▶ Departure tracks were modeled to assume no turns before reaching 500 feet above ground level, with climb degraded to as much as 250 feet per minute at 70° F.
- ▶ Runways 4, 22 and 29 have left traffic patterns. Runway 11 has right traffic patterns (a large aircraft landing pattern which will allow left traffic entry north of the City and landing on Runway 11 was also included).
- ▶ Standard INM aircraft models were selected to represent each of the fixed wing categories included in the forecasts. The C-130 was used to model present U.S. Forest Service fire suppressant operations. The C-130E was used for future U.S.F.S. activity.
- ▶ It was assumed that daylight activity will account for 90% of total operations, evening activity will account for 5%, and operations at night will account for the remaining 5% (an exception to this is that all U.S.F.S. activity occurs during daylight hours).
- ▶ In the 1997/98 scenario, it was assumed that U.S.F.S. activity will be compressed into five days in the peak month - 68 total operations in 5 days, or 14 peak daily operations. Runway use was based upon the wind analysis percentages included in Section 1.
- ▶ In the 2017/18 scenarios, it was assumed that U.S.F.S. activity will be compressed to ten days in the peak month. Runway use was based upon the wind analysis

included in Section 1.

- ▶ The INM does not provide for rotorcraft operations or types, and rotorcraft do not typically use the runway environment and fixed-wing traffic patterns. Therefore, rotorcraft were not considered in the analysis.
- ▶ The noise generated by trucks and automobiles of the adjacent Interstate 40, and by trains on adjacent railroad tracks, were not considered in this analysis. The INM software considers only fixed wing aircraft noise.

The four noise exposure scenarios are described as follows:

1. In order to model the potential impacts of the **Existing G.A. and U.S.F.S Operations**, the "Estimated Actual Current Activity" for 1997, as determined in Section 2, was used to represent aircraft activity. The actual U.S. Forest Service activity level for FY 1997 was used, along with the current estimated General Aviation levels from Page 2-15, as follows:

Single-Engine Propeller	9,328	annual operations
Multi-Engine Propeller	1,822	annual operations
Jet	688	annual operations
U.S.F.S. Activity	68	annual operations

The results of this analysis are presented in Figure 6-1, at the end of this section. In this scenario, the 65 Ldn contour extends over a small portion of undeveloped low-density residential land to the southwest. A very small portion of the 65 Ldn contour also extends over the residential area to the northeast of the Runway 22 threshold. The balance of the 65 Ldn contour and all of the 75 Ldn contour are contained within the airport operations area, or over undeveloped land.

2. A "Worst-Case" scenario was modeled for the potential 2017/18 **High-Range G.A. and U.S.F.S. Forecast Operations**, using the "High Range Forecast of Aviation Activity" figures for 2017 from Page 2-23, as follows:

Fixed-Wing Piston Aircraft	32,182	annual operations
Jet or Turboprop Aircraft	3,934	annual operations
U.S.F.S. Activity	563	annual operations

The results of this "Worst-Case" analysis are presented in Figure 6-2, at the end of this section. In this scenario, the 65 Ldn contour would extend past the high-density residential area to the northeast of the Runway 22 threshold, and about one-half mile further to the northeast over the City. The contour would also extend over a small residential area to the southeast and the impacts to the currently undeveloped low-density residential area to the southwest would be increased. The 75 Ldn contour would be contained within the airport operations

areas, except that a very small portion extends over the undeveloped low-density residential area to the southwest.

3. For this scenario, Scenario 2 was modified by assuming that there may be no U.S.F.S. activity from the Winslow base in the future. This was modeled as the 2017/18 **High Range G.A. Forecasts / No U.S.F.S. Operations** scenario, by using the "High Range Forecast of Aviation Activity" figures for 2017 from Page 2-23, but excluding the U.S.F.S. activity, as follows:

Fixed-Wing Piston Aircraft	..... 32,182	annual operations
Jet or Turboprop Aircraft	..... 3,934	annual operations
U.S.F.S. Activity	..... 0	annual operations

The results of this analysis are presented in Figure 6-3, at the end of this section. The extent of the 65 Ldn impacts are diminished somewhat in this scenario. However, because of the high level of jet and turboprop activity (which generates the most noise), there will still be impacts to the surrounding residential and commercial areas.

4. The last scenario is the 2017/18 **Low Range G.A. Forecasts / 1997 U.S.F.S. Activity** model. This was generated in order to provide a comparison of potential impacts which might occur that is linked to the range of forecasts developed in Section 2. This scenario was based on the "Low Range Forecast of Aviation Activity", as presented on Page 2-22, but assuming that U.S.F.S. activity remains at current levels in the future. The activity used is as follows:

Single-Engine Piston Aircraft	..... 16,275	annual operations
Multi-Engine Piston Aircraft	..... 3,347	annual operations
Jet or Turboprop Aircraft	..... 964	annual operations
U.S.F.S. Activity	..... 68	annual operations

The results of the Low-Range analysis are presented in Figure 6-4, at the end of this section. There is actually very little change in the extent of the contours when compared to the present scenario (1) model.

Figure 6-6 illustrates the extent of the 55 Ldn contours that were generated in each of the scenarios described above.

In order to provide a method of easily comparing the differences in the four scenarios described above, the land area of each of the three noise contours was computed, and is presented below.

Comparison of Ldn Contour Land Areas
Winslow-Lindbergh Regional Airport

	Land Areas in Square Miles		
	<u>55 Ldn</u>	<u>65 Ldn</u>	<u>75 Ldn</u>
Scenario 1: 1997/98			
Existing G.A. and USFS Operations	2.84	0.61	0.15
Scenario 2: 2017/18			
High Range G.A. & USFS Forecast Operations	6.74	1.30	0.38
Scenario 3: 2017/18			
High Range G.A. Forecasts / No USFS	5.88	1.16	0.37
Scenario 4: 2017/18			
Low Range G.A. Forecasts / 1997 USFS Activity . . .	3.36	0.70	0.19

Compatible
Land Use

Land-use compatibility conflicts are a common problem around many airports and smaller General Aviation facilities. In urban areas, as well as some rural settings, airport owners find that essential expansion to meet the demands of airport traffic is difficult to achieve due to the nearby development of incompatible land uses.

The issue of aircraft noise is generally the most apparent perceived environmental impact upon the surrounding community. In order to determine the potential noise exposure to the Winslow community four separate scenarios were analyzed as described above. The four scenarios that were examined provide a range of noise exposure that could occur within the next twenty years, depending on which scenario approximately occurs. The noise analysis section describes the results of the four analyses in terms of impact to adjacent land uses. All four scenarios resulted in the 65 Ldn contour extending into an existing or future (undeveloped) residential area. In Scenario 2, the 75 Ldn contour extends over a small portion of the undeveloped low-density residential area to the southwest. Aircraft noise, therefore, may impact existing and planned residential areas to some degree both under existing conditions and potential future conditions. It is important to consider that these statements are only true if real events match the conditions assumed for the models.

Conflicts may also exist in the protection of runway approach and transition zones to assure the safety of both the flying public and the adjacent property owners. Adequate land for this use should be either owned in fee or controlled in easements.

Within the Master Plan, fee or lease acquisition of would be required for Runway Protection Zone avigation easements for all runways and for the new RPZ and MALSR construction related to the extension of Runway 11-29.

Based on the noise analysis and on a review of the land use adjacent to the airport, performed during the course of preparing this Master Plan, there are presently existing and will be future adjacent incompatible land uses affecting the airport. These impacts are noise-related and can be broken down into three categories.

1. Existing conditions impacting property zoned as residential.
2. Future conditions (unrelated to the proposed Runway 11-29 extension) impacting existing residential areas and impacting property zoned as residential.
3. Future conditions (related to the proposed Runway 11-29 extension) impacting existing residential areas and impacting property zoned as residential.

The increase of aircraft noise due to an increase in air traffic or a change in aircraft type is not usually an action which requires an Environmental Assessment, unless the change is brought about by runway pavement strengthening which would result in 1.5 Ldn or greater increase in noise over any sensitive area located within the 65 Ldn contour. The only one of the three impact categories above which will definitely require an Environmental Assessment is the one involving the Runway Extension. However, this should not preclude the City of Winslow from performing a serious review of land use surrounding the airport in an effort to mitigate existing and future impacts.

The *Airport Environmental Handbook* states that an Environmental Assessment shall document "the required sponsors assurance under section 511(a)(5) of the 1982 Airport Act that appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. The assurance must be related to existing and planned land uses". (Page 31, paragraph 2b). Ideally, the City of Winslow should undertake a land use study with an ultimate objective to create additional land use controls to reduce the noise impact to future residential areas and existing ones, if possible.

There are several sources of information available for the planning and implementation of land use controls. These are:

1. The Arizona Airports Land Use Compatibility Study, Volume V of the Arizona Aviation System Plan (December 1992), prepared by the Arizona Department of Transportation, Aeronautics Division.
2. Appendix A, Federal Aviation Regulations (FAR), Part 150.
3. FAA Advisory Circular 150/5050-6, Airport-Land Use Compatibility Planning.

4. FAA Advisory Circular 150/5020-1, Noise Control and Compatibility Planning for Airports.
5. FAA Advisory Circular 150/5190-4A, A Model Zoning Ordinance to Limit Height of Objects Around Airports.

At minimum airport-related ordinances that should be considered for land use control are:

- Height hazard ordinances
- Noise ordinances
- Land use ordinances

Social Impacts

These are impacts which arise from the disruption of communities, relocation of persons, changes in employment patterns and changes in transportation patterns.

No relocation of persons, or changes in employment or major changes in transportation patterns are necessary with the proposed plan of development. Therefore, no impacts associated with the planned development are foreseen.

Induced Socioeconomic Impacts

These secondary or indirect impacts involve shifts in population, changes in economic climate, or shifts in levels of public service demand. The effects are directly proportional to the scope of the project under consideration.

Assessment of socioeconomic impacts is usually associated with major development at larger air carrier airports, which involve major terminal building development of roadway alignments, and similar work. The extent of the indirect socioeconomic impacts of the proposed development is not of the magnitude that would normally be considered significant.

Air Quality

The Federal Aviation Administration, through FAA Order 5050.4A, *Airport Environmental Handbook*, includes an established procedure which is followed in order to determine whether an air quality analysis is necessary for a proposed airport development action.

The initial step in this process is to determine whether the anticipated project involves airport location, runway development or other physical airside and/or landside improvements which increase airport capacity. Since the analysis in Section 2 indicates that Winslow-Lindbergh Regional Airport has ample capacity to meet the aviation demand within the planning period, no projects to increase capacity have been proposed.

However, forecasts of estimated aviation activity for the 1997 through 2018 period that were developed as part of the planning process for the Winslow-Lindbergh Regional Airport, indicated an expected increase in the number of operations.

Assuming that the increase in activity shown in the forecasts might indicate a potential for increased impacts to air quality, the next step in the process is the determination of whether or not the airport is within a state within direct source review (ISR)

The state of Arizona is not an ISR state. This being the case, the threshold criteria contained in the FAA *Airport Environmental Handbook* must be examined in order to determine if an assessment of air quality is required. According to the *Handbook*, no air quality analysis is required if the levels of activity forecast in the time frame of the proposed action are below either of the following.

- For commercial service airports: Less than 1.3 million annual passenger and less than 180,000 annual general aviation operations.
- For general aviation airports: Less than 180,000 forecast annual operations.

For the planning year 2018, the total annual operations (high-range) forecast for Winslow-Lindbergh Regional Airport is 39,974. It is evident from the number of forecasted operations for Winslow-Lindbergh Regional Airport that neither of these criteria will be exceeded. An air quality assessment should not be required.

The 1982 Airport Act requires that Airport Improvement Program applications for projects involving airport location, runway location, or a major runway extension shall not be approved unless the governor of the state in which the project is located certifies that there is "reasonable assurance" that the project will be located, designed, constructed and operated in compliance with applicable air quality standards. A runway extension for 11-29 has been programmed in the Master Plan. An Environmental Assessment will be required to be prepared for the runway extension. An Environmental Assessment may also be required to "straighten out" the taxiway parallel to Runway 11-29. (Refer to Section "Impacts Upon Public Recreation Areas and Historical/Cultural Resources".) This certification should be applied for, as part of an EA process, through the Arizona Department of Environmental Quality (ADEQ).

The Master Plan program calls for the eventual demolition of the Terminal Building and the eventual restoration and preservation of the T.A.T. Hangar. The potential for the presence of asbestos as an airborne hazard in these structures should be investigated prior to any construction involving these buildings.

Water Quality

The 1982 Airport Act also requires that Federal Airport Improvement Program (AIP) applications for projects involving airport location, runway location, or a major runway extension shall not be approved unless the governor of the state in which the project is located certifies that there is "reasonable assurance" that the project will be located, designed, constructed, and operated in compliance with all applicable water quality standards. As with the air quality assurance for the proposed runway extension, this certification should be applied for as part of an EA process, through the Arizona Department of Environmental Quality (ADEQ).

Correspondence dated May 11, 1998 from the Arizona Department of Environmental Quality (Exhibit 10) provides guidance as to what information will be needed during an Environmental Assessment process to assess a proposed project's impact on water quality. This information includes:

- "
- Location map showing geographic context of the site relative to nearby communities and roads.
 - Watershed map showing context of site with respect to nearest waterways, surface water bodies, intermittent streams, wetlands, wells (irrigation, private and public drinking water, and dry wells), wastewater and drinking water treatment facilities.
 - A narrative description of the airport's current and projected water needs, including information on the source(s) of water for drinking and other uses, wastewater management, current and projected wastewater and effluent generation, runoff management, and permits currently held.
 - Other land uses downstream and in the water shed, including agricultural, industrial, undeveloped, public lands, and habitats, with special attention to identifying wetland or riparian habitats near the site."

The Airport Environmental Handbook states that any Environmental Assessment required for an airport activity shall include descriptions of design, mitigation measures and construction controls to indicate that any water quality standards and permit requirements are met on a Federal, State, and/or local level. This stipulation can apply to storm and sanitary sewers, water supply and waste treatment, erosion controls, fuel spill containing, and drainage design. This Master Plan for Winslow-Lindbergh Regional Airport does include the potential expansion of the sanitary sewer system for the relocation of the Terminal Building and the unplugging/clean-up of existing storm drains. While these activities may occur in the future, they, by themselves, do not normally create a requirement to produce an Environmental Assessment.

A storm water permit must be applied for through ADEQ prior to commencement of construction activities if clearing, grubbing and excavation activities disturb more

than five acres of land. Grading of less than five acres will also be required to be permitted if it is part of a larger development plan.

If construction activities involve channelization or earthmoving within a "Water of the United States", a 404 permit will need to be obtained from the U.S. Army Corps of Engineers prior to commencement of construction (Reference: Exhibit 1). There are no known "Waters of the United States" within the Airport boundary.

Impacts Upon Public
Recreation Areas and
Historical/Cultural
Resources

Potential short-term impacts to water quality caused by construction activity (erosion and sediment transport) must be addressed for each construction project in specifications. ADEQ suggests in Exhibit 8 that "These impacts can be mitigated by using techniques to minimize vegetation and surface disturbance, by implementing erosion control measures during construction".

Section 4(f) of the DOT Act states that the *"Secretary shall not approve any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state or local significance as determined by officials having jurisdiction thereof unless there is no feasible and prudent alternative to the use of such land and such program or project includes all possible planning to minimize harm resulting from the use."*

The proposed improvements will have no significant impacts upon existing parks, established waterfowl/wildlife refuges or recreation areas. However, it has been noted in the Master Plan text that there are two structures that may be regarded as historic, the T.A.T. Hangar and the Terminal Building. The selected long-term Alternate (#5) calls for the preservation of the T.A.T. Hangar and the eventual demolition of the existing Terminal Building. There is some debate as to whether all or part of the Terminal Building is an historic structure. Nevertheless, the Terminal Building has been slated for eventual demolition in order to straighten out the taxiway parallel to Runway 11-29. In order to receive public funds for the taxiway "straightening" an Environmental Assessment may be required due to the potential for the Terminal Building as an historic structure.

Correspondence dated March 16, 1998 from the Arizona State Parks Department (Exhibit 8) states that the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA) will "apply if any aspect of the planning or development process involves a permit or license from a federal agency such as FAA, federal funding, or loan guarantee. Both of those laws require the agency (and thus the permit, license, or grant applicant) to consider the impact of the project on cultural resources..." The Arizona State Parks Department recommends that the Terminal Building and the T.A.T. Hangar be evaluated for possible inclusion to the National Register of Historic Places and that all existing facilities be evaluated. Undeveloped land should be surveyed for archaeological resources, Exhibit 8 suggests.

If an Environmental Assessment is required prior to design and construction of a

proposed project, we recommend that an archeological survey be included as part of the EA process. In the event that there may be existing cultural resources in the development area, construction project specifications should require that projects be temporarily stopped if any cultural resources are found during construction.

Biotic Communities -
Flora and Fauna

This section considers the impacts of proposed projects on biotic communities and has overlapping requirements with the next two sections (Threatened and Endangered Species and Wetlands). The requirements of this section are as follows.

5. If a proposed project takes or impacts a publicly-owned wildlife refuge, a special study needs to be prepared.

This requirement does not apply to Winslow-Lindbergh Regional Airport.

6. For any proposed project it is necessary to consider the impacts on endangered and threatened species, if any (refer to the next section).
7. If the proposed project would affect water resources (i.e., wetlands, groundwater, impoundment, diversion, deepening, controlling, modifying, polluting, dredging, or filling of any stream or body of water), the Fish and Wildlife Coordination Act applies. Consultation should be initiated with both the U.S. Fish and Wildlife Service and with the Arizona Game and Fish Department. Letters should be sought and obtained from both agencies to determine if any proposed actions will damage wildlife resources and to determine mitigating measures, if necessary (Reference: Exhibit 2).

The *Airport Environmental Handbook* states (Page 42 - Section 9d1): "If the proposal would impact only man-dominated areas such as previously disturbed airport property, populated areas, or farmland, it may be assumed that there would be no significant impact on biotic communities." Section 9d2 states that if the project "would impact other than man-dominated areas but the impacts would be transient rather than permanent, such as dislocation or other impacts due to construction activities, it may be assumed that there would be no significant impact on biotic communities. The environmental assessment shall document the transient nature of the impacts and any mitigation measure."

Most of the proposed projects at Winslow-Lindbergh Regional Airport appear to affect only "man-dominated" areas so that these projects would have no significant impact on biotic communities. The only exception would be the Runway 11-29 extension, which is subject to an Environmental Assessment.

See the next section (Threatened and Endangered Species) for comments received.

Threatened and
Endangered Species

It is necessary for any proposed project to consider the impacts on Threatened and Endangered Species. An "Endangered Species" is defined as any member of the animal or plant kingdom determined to be in danger of extinction throughout all or a significant portion of its range.

A "Threatened Species" is defined as any member of the plant or animal kingdom which are likely to become endangered in the foreseeable future.

No determination has been made as to whether any of the proposed projects would impact Threatened or Endangered Species. The U.S. Fish and Wildlife Service has provided a list of Endangered or Threatened Species, and candidates for the list, that may be found within Navajo County (Reference: Exhibit 2). The Winslow-Lindbergh Regional Airport "may not necessarily include all or any of these species", according to the letter from the U.S. Fish and Wildlife Service. Correspondence dated March 12, 1998 from the Arizona Department of Agriculture (Exhibit No. 7) states that "the project is not expected to have any significant adverse impact to protected plant species. The Department recommends that if any protected plants exist on site, they be avoided or transplanted, preferably on site.

Wetlands

Wetlands are defined in Executive Order 11990, "Protection of Wetlands", as "those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, and natural ponds." (Reference also: Exhibit 2).

There are no wetlands at Winslow-Lindbergh Regional Airport. Furthermore, the airport property does not appear to drain to a wetland.

Floodplains

Floodplains are defined by Executive Order 11988, "Floodplain Management", as the lowland and relatively flat areas adjoining coastal water "...including a minimum, that area subject to a one percent or greater chance of flooding in any given year...", that is, an area which would be inundated by a 100-year flood. If a proposed development involves a 100 year floodplain, mitigating measures must be investigated in order to avoid significant changes to the drainage system.

Winslow-Lindbergh Regional Airport does lie within a designated floodplain, according to correspondence (Exhibit 5) dated March 6, 1998 received from the Arizona Department of Water Resources. The letter states "All development should comply with the City of Winslow's flood damage prevention ordinance".

Coastal Zone
Management Programs
and
Coastal Barriers

The *Airport Environmental Handbook* states (page 53, Section 14a), "*The Coastal Barriers Resources Act of 1982...prohibits...Federal financial assistance for development within the Coastal Barrier Resources System which consists of undeveloped coastal barriers along the Atlantic and Gulf Coasts*".

Winslow-Lindbergh Regional Airport is not located within the Coastal Barrier Resources System.

Wild and Scenic Rivers

The Wild and Scenic Rivers Act describes those river areas eligible for protection from development. As a general rule these rivers possess outstanding scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar value.

No rivers currently classified as Wild and Scenic are in the close proximity of Winslow-Lindbergh Regional Airport.

Conversion of
Farmland

The Farmland Protection Policy Act (FPPA) authorizes the U.S. Department of Agriculture to develop criteria for identifying the effects of Federal programs upon the conversion of farmland to uses other than agriculture.

Correspondence dated March 30, 1998 from the U.S. Department of Agriculture (Exhibit No. 9) states that "1-the airport master plan, if implemented as planned, is exempt from the requirements of the FPPA - as revised, in 1994, that excludes land which is already in or is committed to urban development, currently used as water storage, or land that is not prime or unique farmland, and 2- we do not see any immediate impacts that would directly affect wetland areas associated with agricultural activities".

The proposed improvements will all be developed upon property which is not currently or potentially agricultural use land. Therefore, no impacts to farmlands are expected.

Energy Supply and
Natural Resources

For most general aviation and non-hub air carrier airport actions, changes in energy demands or other natural resource consumption will not result in significant impacts. This is the case for the proposed projects at Winslow-Lindbergh Regional Airport.

Light Emissions

Aviation lighting required for the purpose of obstruction marking, security of parked aircraft and vehicles, and visual aids to navigation are the main source of light emissions emanating from airports. An analysis is necessary only if a proposal would introduce new airport lighting facilities which might affect nearby residential or other

sensitive land uses.

The Master Plan for Winslow-Lindbergh Regional Airport has programmed a future MALSR and obstruction lighting. The *Airport Environmental Handbook* states that establishment of an instrument landing system or approach lighting system is an action normally requiring an Environmental Assessment. An Environmental Assessment should therefore be done to obtain clearance for the MALSR.

Solid Waste Impacts

Airport development actions which relate only to construction or expansion of runways, taxiways, and related facilities do not normally include any direct relationship to solid waste collection, control, or disposal. All of the "airside" improvements proposed for Winslow-Lindbergh Regional Airport fit into this category, so no significant impacts to solid waste generation are anticipated.

Any solid waste disposal facility (i.e., sanitary landfill, transfer station, etc.) which is located within 5,000 feet of all runways planned to be used by piston-powered aircraft, or within 10,000 feet of all runways planned to be used by turbine-powered aircraft is considered by the FAA to be an incompatible land use because of the potential for conflicts between bird habitat and low-flying aircraft. Any waste disposal facility which is located within a 5 mile radius of any runway end "*that attracts or sustains hazardous bird movements from feeding, water or roosting areas into, or across the runways and/or approach and departure patterns of aircraft*" is also considered to be incompatible. This determination is contained in paragraph 5 of FAA Order 5200.5A, *FAA Guidance Concerning Sanitary Landfills On or Near Airports*.

Reference to this potential hazard is also made in 40 CFR Part 257, *Criteria for Classification of Solid Waste Disposal Facilities*, section 257.3-8.

There are no existing or planned solid waste disposal sites within 10,000 feet of the runway at Winslow-Lindbergh Regional Airport. There are no solid waste disposal facilities located within a five-mile radius of the Airport.

Construction Impacts

Any construction project will generate short-term environmental impacts. These may include noise and air pollution (dust and exhaust emissions) from construction equipment on the site and traversing nearby neighborhoods, air pollution from burning of refuse, and water pollution from erosion and increased siltation of downtown bodies of water.

These potential impacts can be controlled by requirements and restrictions placed in the Contract Documents and Specifications for each project.

Potential erosion and siltation should be mitigated by incorporation of applicable federal and state standards into the construction contract specifications. Typically,

this involves creation and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

As a method of minimizing noise and air pollution caused by construction equipment, the contractor's equipment access be routed to avoid the most sensitive adjacent areas and to contain the adverse impacts as much as possible to the airport property.

The access routs and limitations should be defined on the construction plans and in the specifications, as appropriate.

Dust pollution should be specifically mitigated by requiring appropriate dust control measures as part of the construction specifications.

Coordination with the Arizona Department of Environmental Quality may be necessary during the development of construction plans and during the construction activities.

Improvements involving excavation could uncover archaeological, cultural or human skeletal remains. As noted in Exhibit 8, "State law...covers the discovery of archaeological and human remains on county and municipal lands and their subsequent treatment, and the accidental or intentional disturbance of human remains and funerary objects on private land". It is recommended that any set of contract documents and specifications include a provision for the contractor to stop work and to contact the State Historic Preservation Office in the event of a potential archeological, cultural or skeletal discovery.

Miscellaneous

One potential environmental hazard which is not directly subject to the *Airport Environmental Handbook* is the presence of transformers with Polychlorinated Biphenyls (PCB's) housed within the existing electrical vault. These unused transformers should be removed and treated as needed within an appropriate airport improvement project.

SUMMARY OF FINDINGS

There are several proposed projects that will require preparation of an Environmental Assessment and issuance of a FONSI. These are:

1. Extension of Runway 11-29.
2. Straightening of Taxiway Parallel to Runway 11-29 (dependent on disposition toward Terminal Building as an Historic Building).
3. Installation of a MALSR.

Since all of these projects, if pursued, may be done within the same short period of time, it would be economical to cover all three projects within one Environmental Assessment.

The Environmental Assessment for these projects should address all applicable items listed in FAA Order 5050.4. Based on this environmental overview, the critical issues appear to be:

- Airport Noise (existing and ultimate)
- Historic Resources (Terminal Building)
- Air Quality (potential for asbestos)
- Endangered and Threatened Species (undetermined)
- Light Emissions (MALSR)
- Compliance with Winslow's flood damage protection ordinance.

Other proposed projects which may involve the use of federal or state funds, other than FAA or ADOT-Aeronautics funds, may be subject to other permitting requirements. Plans for renovation of any building should consider the existence of asbestos or other hazardous materials.

The City of Winslow should enact airport-related ordinances to control the use of land surrounding the airport.

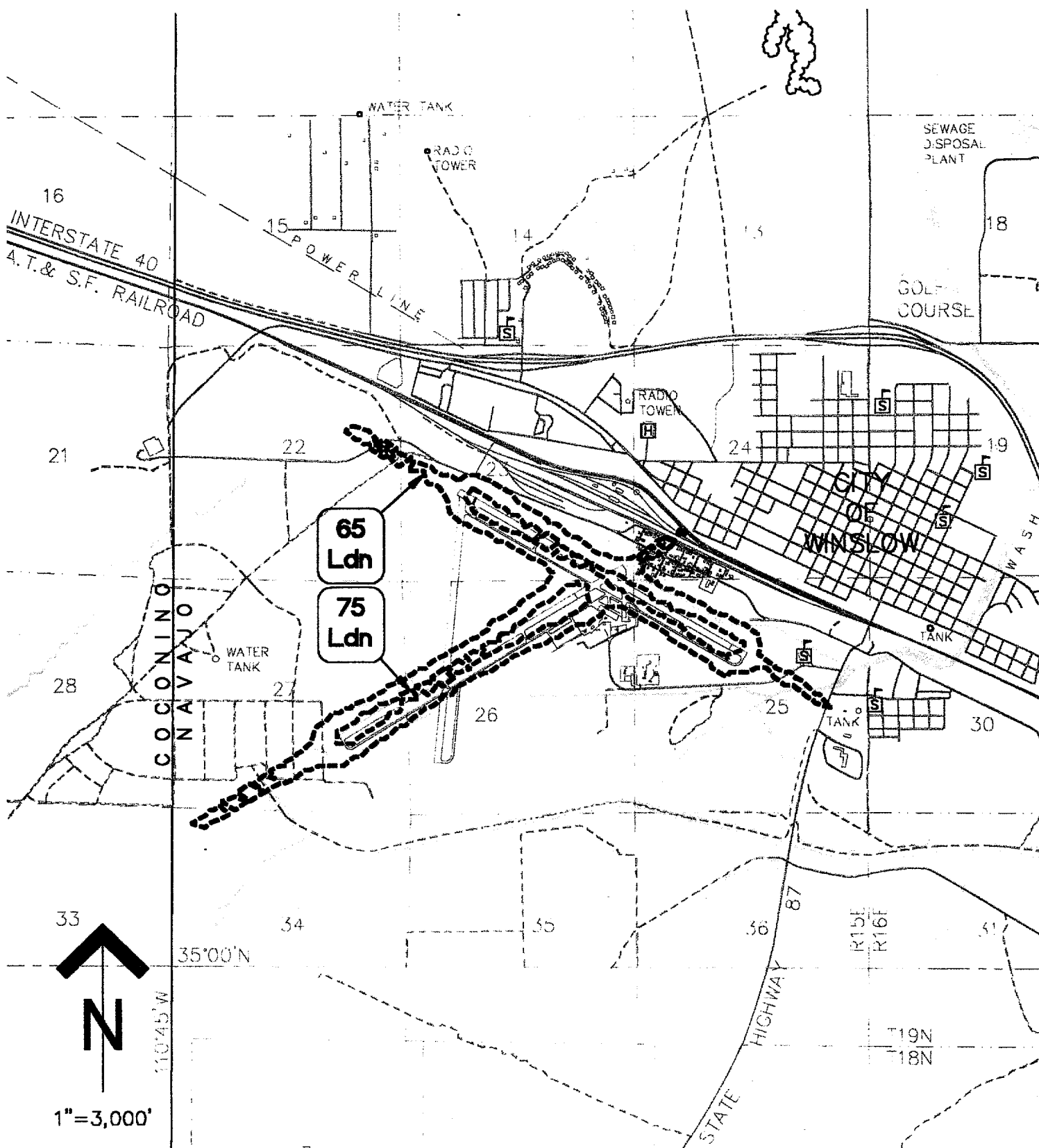


FIGURE 6-1
WINSLOW-LINDBERGH REGIONAL AIRPORT
1997/1998 NOISE CONTOURS
EXISTING G.A. and U.S.F.S. OPERATIONS

Revised: May 15, 1998

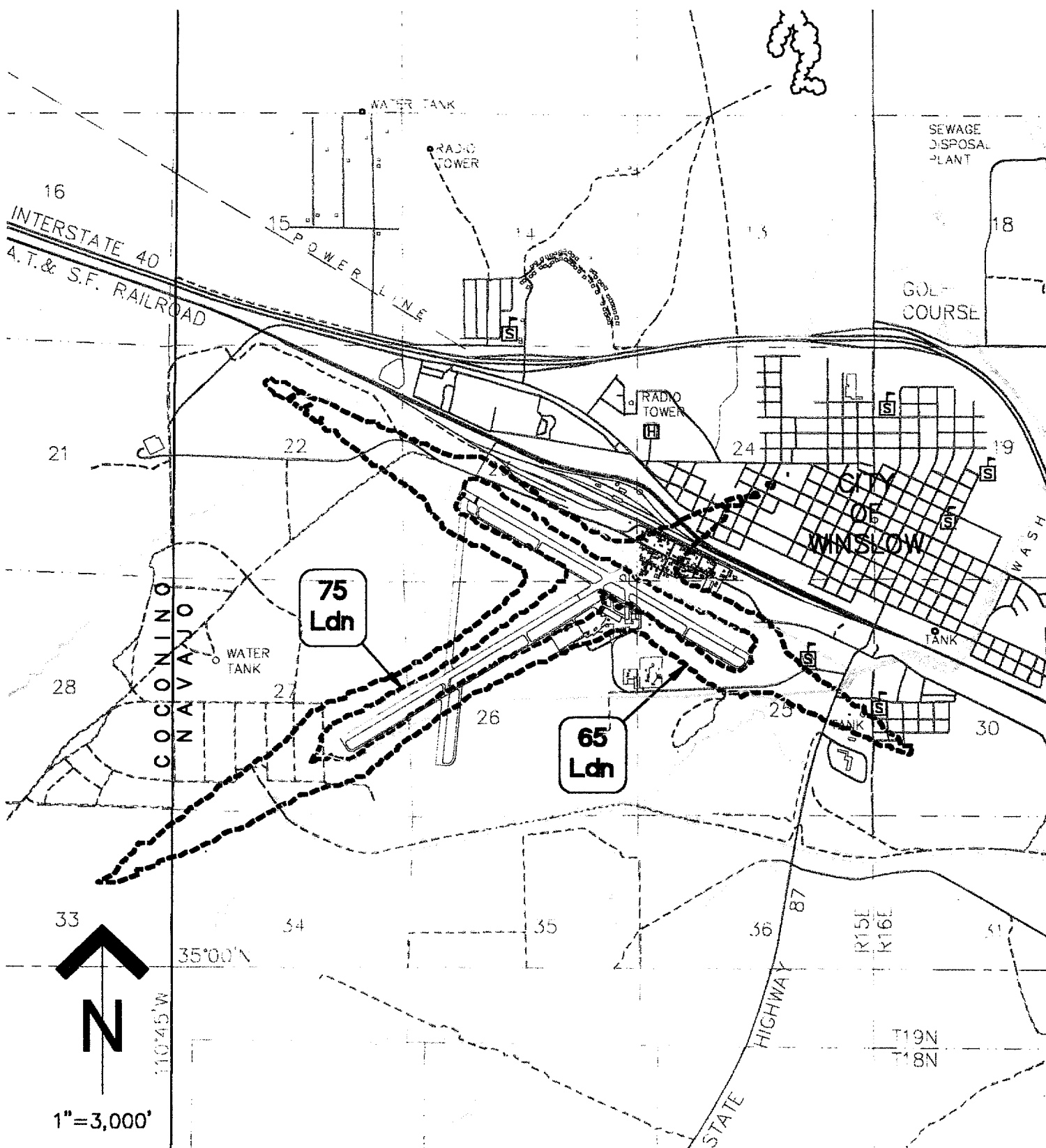


FIGURE 6-2

WINSLOW-LINDBERGH REGIONAL AIRPORT 2017/2018 NOISE CONTOURS

HIGH RANGE G.A. and U.S.F.S. FORECAST OPERATIONS

Revised: May 15, 1998

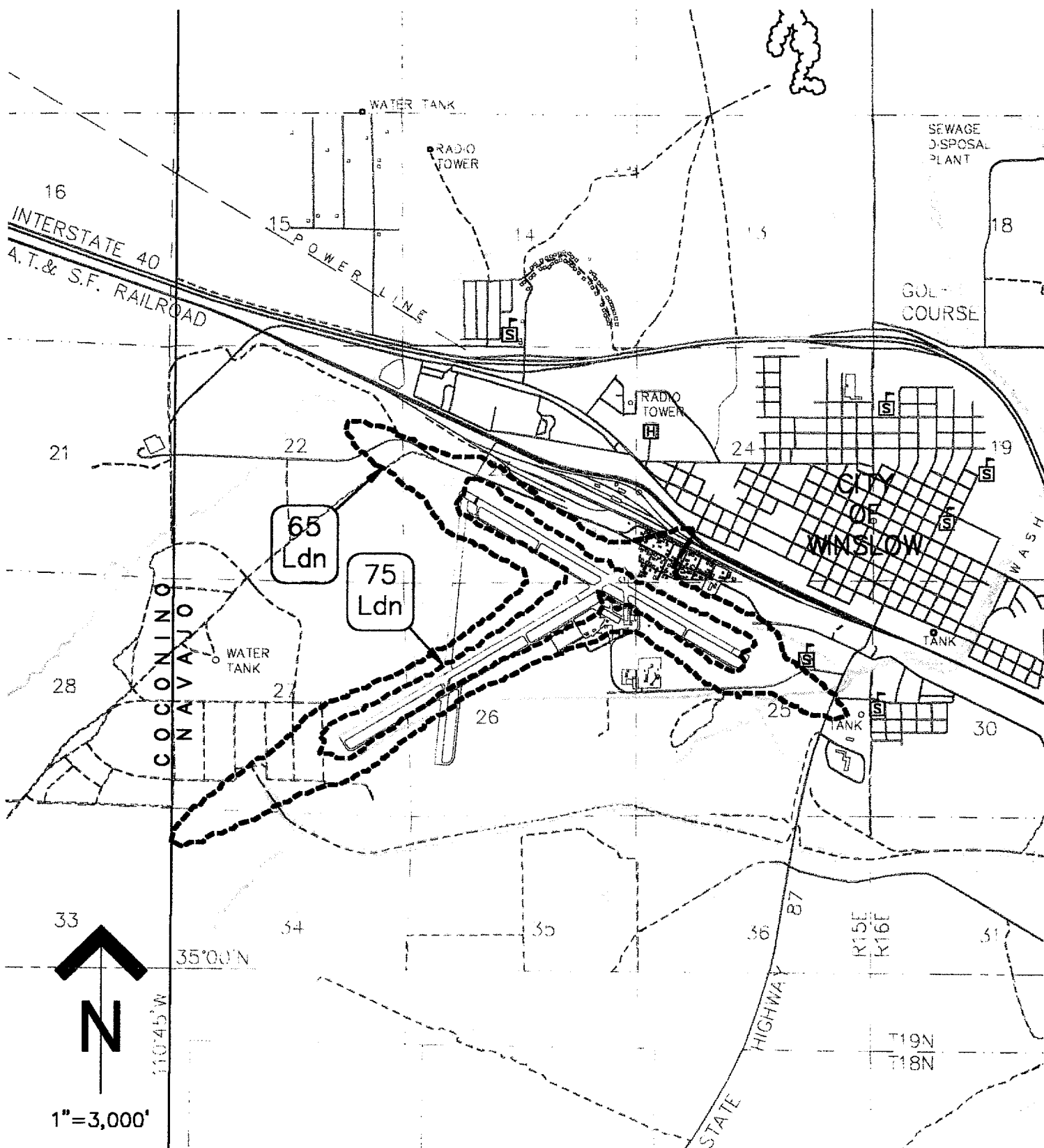


FIGURE 6-3

**WINSLOW-LINDBERGH REGIONAL AIRPORT
2017/2018 NOISE CONTOURS**

HIGH-RANGE G.A. FORECASTS / NO U.S.F.S. OPERATIONS

Revised: May 15, 1998

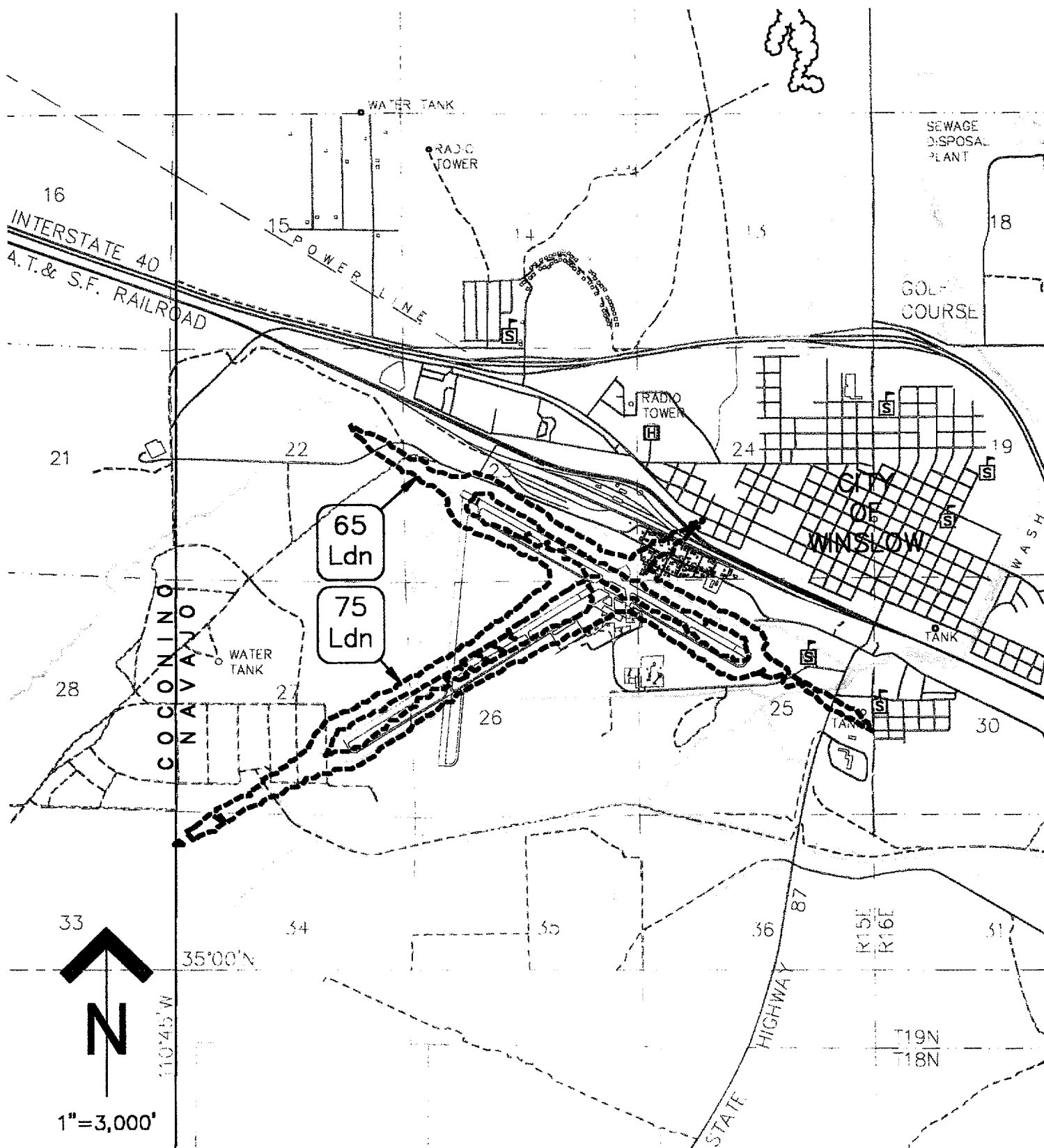


FIGURE 6-4

WINSLOW-LINDBERGH REGIONAL AIRPORT 2017/2018 NOISE CONTOURS

LOW-RANGE G.A. FORECASTS / 1997 U.S.F.S. ACTIVITY

Revised: May 15, 1998

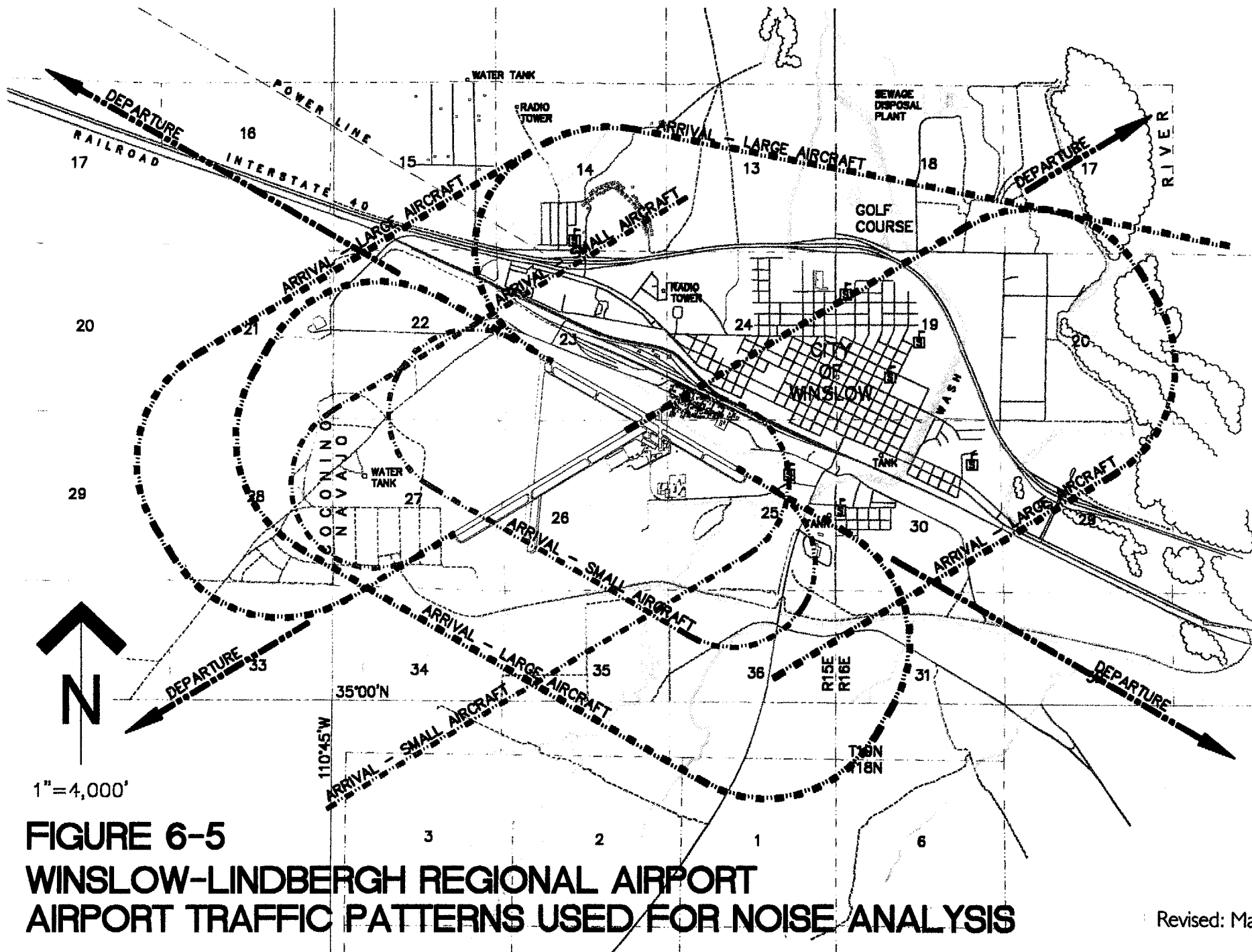


FIGURE 6-5
WINSLOW-LINDBERGH REGIONAL AIRPORT
AIRPORT TRAFFIC PATTERNS USED FOR NOISE ANALYSIS

Revised: May 15, 1998

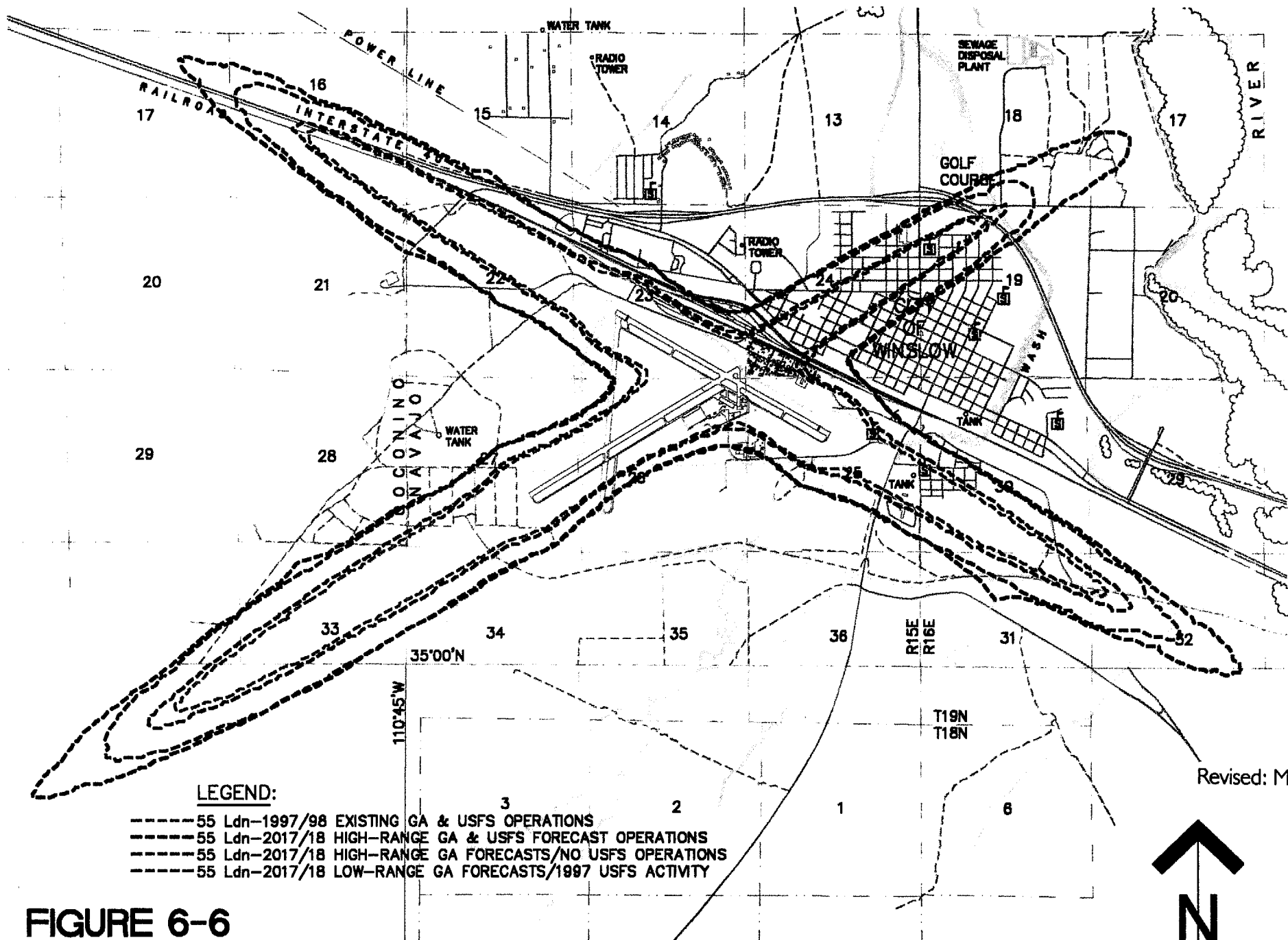


FIGURE 6-6
WINSLOW-LINDBERGH REGIONAL AIRPORT
COMPARISON OF 55 Ldn CONTOURS FOR 4 SCENARIOS



REPLY TO
ATTENTION OF:

Office of the Chief
Regulatory Branch

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3636 NORTH CENTRAL AVENUE, SUITE 760
PHOENIX, ARIZONA 85012-1936

February 17, 1998



City of Winslow
C/O Gannett Fleming, Inc.
ATTN: Mr. Ronald D. Schreier
3001 East Camelback Road, Suite 130
Phoenix, Arizona 85016-4498

File Number: 984-0235-RWF

Ron
Dear Mr. Schreier:

It has come to our attention that you plan to perform improvements to the Winslow-Lindbergh Regional Airport in the unnamed washes at (Section 22, 23, 24, 25, 26, and 27, T19N, R15E), Winslow, Navajo County, Arizona.

This activity may require a Department of the Army permit issued under Section 404 of the Clean Water Act. A Section 404 permit is required for the discharge of dredged or fill material into the "waters of the United States," including adjacent wetlands. Examples of activities requiring a permit are placing bank protection, temporary or permanent stockpiling of excavated material, grading roads, grading (including vegetative clearing operations) that involves the filling of low areas or leveling the land, constructing weirs or diversion dikes, constructing approach fills, and discharging dredged or fill material as part of any other activity.

Enclosed you will find a permit application form and a pamphlet that describes our regulatory program. If you have questions, please contact Ron Fowler at (602) 640-5385 x 226. Please refer to file number 984-0235-RWF in your reply.

Sincerely,

Cindy Lester
Chief, Arizona Section
Regulatory Branch

Enclosure(s)



United States Department of the Interior
Fish and Wildlife Service

Arizona Ecological Services Field Office

2321 W. Royal Palm Road, Suite 103

Phoenix, Arizona 85021-4951

(602) 640-2720 Fax (602) 640-2730



In Reply Refer To:

AESO/SE

2-21-98-I-153

CCN 980380

February 19, 1998



Mr. Ronald D. Schreier, P.E.
Project Manager
Gannett Fleming Engineers and Planners
3001 East Camelback Road, Suite 130
Phoenix, Arizona 85016-4498

RE: Winslow-Lindbergh Regional Airport Master Plan, GF Job No. 31814

Dear Mr. Schreier:

This letter responds to your February 11, 1998, request for an inventory of threatened or endangered species, or those that are proposed to be listed as such under the Endangered Species Act of 1973, as amended (Act), which may potentially occur in your project area (Navajo County). The enclosed list may include candidate species as well. We hope the enclosed county list of species will be helpful. In future communications regarding this project, please refer to consultation number 2-21-98-I-153.

The enclosed list of the endangered, threatened, proposed, and candidate species includes all those potentially occurring anywhere in the county, or counties, where your project occurs. Please note that your project area may not necessarily include all or any of these species. The information provided includes general descriptions, habitat requirements, and other information for each species on the list. Also on the enclosed list is the Code of Federal Regulations (CFR) citation for each listed or proposed species. Additional information can be found in the CFR and is available at most public libraries. This information should assist you in determining which species may or may not occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency must request formal consultation with the Service. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency must enter into a section 7 conference with the Service. Candidate species are those which are being considered for addition to the list of threatened or

endangered species. Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend that they be considered in the planning process in the event that they become listed or proposed for listing prior to project completion.

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, the Service recommends the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways or excavation in waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona protects some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species in your project area.

The Service appreciates your efforts to identify and avoid impacts to listed and sensitive species in your project area. If we may be of further assistance, please contact Tom Gatz.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sam F. Spiller', written in a cursive style.

Sam F. Spiller
Field Supervisor

Enclosures

cc: Director, Arizona Game and Fish Department, Phoenix, AZ

9/19/97

1) LISTED TOTAL= 11

NAME: NAVAJO SEDGE

CAREX SPECUICOLA

STATUS: THREATENED

CRITICAL HAB: Yes RECOVERY PLAN: Yes CFR:

DESCRIPTION: PERENNIAL FORB WITH TRIANGULAR STEMS, ELONGATED RHIZOMES.
FLOWER: WHITE JUNE AND JULY

ELEVATION

RANGE: 5700-6000 FT.

COUNTIES: COCONINO, NAVAJO, APACHE

HABITAT: SILTY SOILS AT SHADY SEEPS AND SPRINGS

DESIGNATED CRITICAL HABITAT IS ON THE NAVAJO NATION NEAR INSCRIPTION HOUSE RUINS. FOUND AT SEEP SPRINGS ON VERTICAL CLIFFS OF PINK-RED NAVAJO SANDSTONE.

NAME: PEBBLES NAVAJO CACTUS

PEDIOCACTUS PEBBLESIANUS VAR PEBBLESIANUS

STATUS: ENDANGERED

CRITICAL HAB: No RECOVERY PLAN: Yes CFR: 44 FR 61922, 10-26-1979

DESCRIPTION: VERY SMALL GLOBOSE 1 INCH TALL AND ABOUT 0.75 INCH IN DIAMETER.
THE 4 (3-5) RADIAL SPINES ARE ARRANGED IN A TWISTED CROSS AND
CENTRAL SPINES ARE ABSENT. FLOWERS YELLOW-GREEN 1 INCH
DIAMETER SPRING.

ELEVATION

RANGE: 5400-5600 FT.

COUNTIES: NAVAJO

HABITAT: GRAVELY SOILS OF THE SHINARUMP CONGLOMERATE OF THE CHINLE FORMATION

EXTREMELY LIMITED GEOGRAPHIC RANGE. DIFFICULT TO GROW IN CULTIVATION.

NAME: BLACK-FOOTED FERRET

MUSTELA NIGRIPES

STATUS: ENDANGERED

CRITICAL HAB: No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-67

DESCRIPTION: WEASEL-LIKE, YELLOW BUFF COLORATION WITH BLACK FEET, TAIL TIP,
AND EYE MASK. IT HAS A BLUNT LIGHT COLORED NOSE AND IS 15-18
INCHES LONG AND TAIL LENGTH IS 5-6 INCHES.

ELEVATION

RANGE: <10,500 FT.

COUNTIES: COCONINO, APACHE, NAVAJO

HABITAT: GRASSLAND PLAINS GENERALLY FOUND IN ASSOCIATION WITH PRAIRIE DOGS

UNSURVEYED PRARIE DOG TOWNS MAY BE OCCUPIED BY FERRETS OR MAY BE APPROPRIATE FOR FUTURE
REINTRODUCTION EFFORTS. THE SERVICE DEVELOPED GUIDELINES FOR SURVEYING PRAIRIE DOG TOWNS WHICH
ARE AVAILABLE UPON REQUEST. NO POPULATIONS OF THIS SPECIES CURRENTLY KNOWN TO EXIST IN ARIZONA.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

Navajo

9/19/97

NAME: APACHE (ARIZONA) TROUT

ONCORHYNCHUS APACHE

STATUS: THREATENED

CRITICAL HAB: No RECOVERY PLAN: Yes CFR: 40 FR 29864, 07-19-1975

DESCRIPTION: THIS YELLOWISH OR YELLOW-OLIVE CUTTHROAT-LIKE TROUT HAS LARGE DARK SPOTS ON BODY. ITS DORSAL, ANAL, AND CAUDAL FINS EDGED WITH WHITE. IT HAS NO RED LATERAL BAND.

ELEVATION

RANGE: >5000 FT.

COUNTIES: APACHE, GREENLEE, GILA, GRAHAM, NAVAJO

HABITAT: PRESENTLY RESTRICTED TO COLD MOUNTAIN STREAMS WITH MANY LOW GRADIENT MEADOW REACHES

OCCUPIES STREAM HABITATS WITH SUBSTRATES OF BOULDERS, ROCKS, AND GRAVEL WITH SOME SAND OR SILT THROUGH MIXED CONIFER AND SPRUCE-FIR FORESTS, AND MONTANE MEADOWS AND GRASSLANDS IN THE WHITE MOUNTAINS. ALSO MANAGED AS A SPORT FISH UNDER SPECIAL REGULATIONS.

NAME: LITTLE COLORADO SPINEDACE

LEPIDOMEDA VITTATA

STATUS: THREATENED

CRITICAL HAB: Yes RECOVERY PLAN: No CFR: 52 FR 35054

DESCRIPTION: SMALL (<4 INCHES LONG) SILVERY MINNOW WHICH IS DARKER ON THE BACK THAN THE BELLY

ELEVATION

RANGE: 4000-8000 FT.

COUNTIES: COCONINO, APACHE, NAVAJO

HABITAT: MODERATE TO SMALL STREAMS IN POOLS AND RIFFLES WITH WATER FLOWING OVER GRAVEL AND SILT

CRITICAL HABITAT INCLUDES EIGHTEEN MILES OF EAST CLEAR CREEK, EIGHT MILES OF CHEVELON CREEK, AND FIVE MILES OF NUTRIOSO CREEK

NAME: LOACH MINNOW

TIAROGA COBITIS

STATUS: THREATENED

CRITICAL HAB: Yes RECOVERY PLAN: Yes CFR: 51 FR 39468, 10-28-1986; 59

DESCRIPTION: SMALL (<3 INCHES LONG) SLENDER, ELONGATED FISH, OLIVE COLORED WITH DIRTY WHITE SPOTS AT THE BASE OF THE DORSAL AND CAUDAL FINS. BREEDING MALES VIVID RED ON MOUTH AND BASE OF FINS

FR 10898, 03-08-1994

ELEVATION

RANGE: <7000 FT.

COUNTIES: PINAL, GRAHAM, GREENLEE, GILA, APACHE, NAVAJO, (AZ); GRANT, CATRON, (NM)

HABITAT: BENTHIC SPECIES OF SMALL TO LARGE PERENNIAL STREAMS WITH SWIFT SHALLOW WATER OVER COBBLE& GRAVEL

CRITICAL HABITAT IS IN ARAVAIPA CREEK, BLUE RIVER, CAMPBELL BLUE CREEK, SAN FRANCISCO RIVER, DRY BLUE CREEK, TULAROSA RIVER, EAST WEST AND MIDDLE FORKS OF THE GILA RIVER, AND THE MAINSTEM UPPER GILA RIVER. PRESENTLY FOUND IN ALL CRITICAL HABITAT PLUS WHITE RIVER AND EAGLE CREEKS. CRITICAL HABITAT IS ONLY PROPOSED DUE TO A 1996 10TH CIRCUIT COURT DECISION SETTING ASIDE THE FINAL CRITICAL HABITAT PENDING COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA).

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

Navajo

9/19/97

NAME: AMERICAN PEREGRINE FALCON

FALCO PEREGRINUS ANATUM

STATUS: ENDANGERED

CRITICAL HAB: No RECOVERY PLAN: Yes CFR: 35 FR 16047, 10-13-70; 35

DESCRIPTION: A RECLUSIVE, CROW-SIZED FALCON SLATY BLUE ABOVE WHITISH
BELOW WITH FINE DARK BARRING. THE HEAD IS BLACK AND APPEARS
TO BE MASKED OR HELMETED. WINGS LONG AND POINTED. LOUD
WAILING CALLS ARE GIVEN DURING BREEDING PERIOD.

ELEVATION
RANGE: 3500-9000 FT.

COUNTIES: MOHAVE COCONINO NAVAJO APACHE SANTA CRUZ MARICOPA COCHISE YAVAPAI GILA PINAL PIMA
GREENLEE GRAHAM

HABITAT: CLIFFS AND STEEP TERRAIN USUALLY NEAR WATER OR WOODLANDS WITH ABUNDANT PREY

THIS IS A WIDE-RANGING MIGRATORY BIRD THAT USES A VARIETY OF HABITATS. BREEDING BIRDS ARE YEAR-
ROUND RESIDENTS. OTHER BIRDS WINTER AND MIGRATE THROUGH ARIZONA. SPECIES IS ENDANGERED FROM
REPRODUCTIVE FAILURE FROM PESTICIDES.

NAME: BALD EAGLE

HALIAEETUS LEUCOCEPHALUS

STATUS: THREATENED

CRITICAL HAB: No RECOVERY PLAN: Yes CFR: 60 FR 35999, 07-12-95

DESCRIPTION: LARGE, ADULTS HAVE WHITE HEAD AND TAIL HEIGHT 28 - 38";
WINGSPAN 66 - 96". 1-4 YRS DARK WITH VARYING DEGREES OF
MOTTLED BROWN PLUMAGE. FEET BARE OF FEATHERS.

ELEVATION
RANGE: VARIES FT.

COUNTIES: YUMA, LA PAZ, MOHAVE, YAVAPAI, MARICOPA, PINAL, COCONINO, NAVAJO, APACHE, SANTA CRUZ, PIMA,
GILA, GRAHAM

HABITAT: LARGE TREES OR CLIFFS NEAR WATER (RESERVOIRS, RIVERS AND STREAMS) WITH ABUNDANT PREY

SOME BIRDS ARE NESTING RESIDENTS WHILE A LARGER NUMBER WINTERS ALONG RIVERS AND RESERVOIRS. AN
ESTIMATED 200 TO 300 BIRDS WINTER IN ARIZONA. ONCE ENDANGERED (32 FR 4001, 03-11-1967; 43 FR 6233, 02-14-
78) BECAUSE OF REPRODUCTIVE FAILURES FROM PESTICIDE POISONING AND LOSS OF HABITAT, THIS SPECIES
WAS DOWN LISTED TO THREATENED ON AUGUST 11, 1995. ILLEGAL SHOOTING, DISTURBANCE, LOSS OF HABITAT
CONTINUES TO BE A PROBLEM.

NAME: CALIFORNIA CONDOR

GYMNOPS CALIFORNIANUS

STATUS: EXPERIMENTAL/NONESSENTIAL CRITICAL HAB: No RECOVERY PLAN: Yes CFR: 32 FR 4001; 03-11-67

DESCRIPTION: VERY LARGE VULTURE (47 IN., WINGSPAN TO 9 1/2 FT, WEIGHT TO 22
LBS); ADULT PLUMAGE BLACKISH, IMMATURE MORE BROWNISH; ADULT
WING LININGS WHITE, IMMATURE MOTTLED; HEAD & UPPER PARTS OF
NECK BARE; YELLOW-ORANGE IN ADULTS, GRAYISH IN IMMATURE.

ELEVATION
RANGE: VARIES FT.

COUNTIES: MOHAVE, COCONINO, NAVAJO, APACHE

HABITAT: HIGH DESERT CANYONLANDS AND PLATEAUS

LAST WILD CONDOR REPORTED IN ARIZONA IN 1924. RECOVERY PROGRAM HAS REINTRODUCED CONDORS TO
NORTHERN ARIZONA, WITH THE FIRST RELEASE (6 BIRDS) IN DECEMBER 1996. RELEASE SITE LOCATED AT THE
VERMILLION CLIFFS (COCONINO CO.), WITH AN EXPERIMENTAL/NONESSENTIAL AREA DESIGNATED FOR MOST OF
NORTHERN ARIZONA AND SOUTHERN UTAH.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

Navajo

9/19/97

NAME: MEXICAN SPOTTED OWL

STRIX OCCIDENTALIS LUCIDA

STATUS: THREATENED

CRITICAL HAB: Yes RECOVERY PLAN: Yes CFR: 56 FR 14678, 04-11-91

DESCRIPTION: MEDIUM SIZED WITH DARK EYES AND NO EAR TUFTS. BROWNISH AND HEAVILY SPOTTED WITH WHITE OR BEIGE.

ELEVATION

RANGE: 4100-9000 FT.

COUNTIES: MOHAVE, COCONINO, NAVAJO, APACHE, YAVAPAI, GRAHAM, GREENLEE, COCHISE, SANTA CRUZ, PIMA, PINAL, GILA, MARICOPA

HABITAT: NESTS IN CANYONS AND DENSE FORESTS WITH MULTI-LAYERED FOLIAGE STRUCTURE

GENERALLY NESTS IN OLDER FORESTS OF MIXED CONIFER OR PONDEROSA PINE/GAMBEL OAK TYPE, IN CANYONS, AND USE VARIETY OF HABITATS FOR FORAGING. SITES WITH COOL MICROCLIMATES APPEAR TO BE OF IMPORTANCE OR ARE PREFERRED.

NAME: SOUTHWESTERN WILLOW FLYCATCHER

EMPIDONAX TRAILLII EXTIMUS

STATUS: ENDANGERED

CRITICAL HAB: Yes RECOVERY PLAN: No CFR: 60 FR 10694, 02-27-95

DESCRIPTION: SMALL PASSERINE (ABOUT 6") GRAYISH-GREEN BACK AND WINGS, WHITISH THROAT, LIGHT OLIVE-GRAY BREAST AND PALE YELLOWISH BELLY. TWO WINGBARS VISIBLE. EYE-RING FAINT OR ABSENT.

ELEVATION

RANGE: <8500 FT.

COUNTIES: YAVAPAI, GILA, MARICOPA, MOHAVE, COCONINO, NAVAJO, APACHE, PINAL, LA PAZ, GREENLEE, GRAHAM, YUMA, PIMA, COCHISE, SANTA CRUZ

HABITAT: COTTONWOOD/WILLOW & TAMARISK VEGETATION COMMUNITIES ALONG RIVERS & STREAMS

MIGRATORY RIPARIAN OBLIGATE SPECIES THAT OCCUPIES BREEDING HABITAT FROM LATE APRIL TO SEPTEMBER. DISTRIBUTION WITHIN ITS RANGE IS RESTRICTED TO RIPARIAN CORRIDORS. DIFFICULT TO DISTINGUISH FROM OTHER MEMBERS OF THE EMPIDONAX COMPLEX BY SIGHT ALONE. TRAINING SEMINAR REQUIRED FOR THOSE CONDUCTING FLYCATCHER SURVEYS. CRITICAL HABITAT ON PORTIONS OF THE 100-YEAR FLOODPLAIN ON SAN PEDRO AND VERDE RIVERS; WET BEAVER AND WEST CLEAR CREEKS, INCLUDING TAVASCI MARSH AND ISTER FLAT; THE COLORADO RIVER, THE LITTLE COLORADO RIVER, AND THE WEST, EAST, AND SOUTH FORKS OF THE LITTLE COLORADO RIVER, REFERENCE 60 CFR:62 FR 39129, 7/22/97.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

Navajo

9/19/97

2) PROPOSED TOTAL= 1

NAME: PARISH ALKALI GRASS

PUCCINELLIA PARISHII

STATUS: PROPOSED ENDANGERED

CRITICAL HAB: No RECOVERY PLAN: No CFR:

DESCRIPTION: A SMALL, BLUE-GREEN, ANNUAL GRASS. FLOWERING STEMS 1-8 INCHES
TALL

ELEVATION

RANGE: 3000-6000 FT.

COUNTIES: COCONINO, NAVAJO

HABITAT: MOIST SALINE SOILS

POTENTIALLY ANY SALINE SEEPS AND ASSOCIATED WETLANDS IN ARIZONA.

9/19/97

3) CANDIDATE TOTAL= 1

NAME: CHIRICAHUA LEOPARD FROG

RANA CHIRICAHUENSIS

STATUS: CANDIDATE

CRITICAL HAB: No RECOVERY PLAN: No CFR: 59 FR 58996

DESCRIPTION: CREAM COLORED TUBERCLES (spots) ON A DARK BACKGROUND ON
THE REAR OF THE THIGH, DORSOLATERAL FOLDS THAT ARE
INTERRUPTED AND DEFLECTED MEDIALY, AND A CALL GIVEN OUT OF
WATER DISTINGUISH THIS SPOTTED FROG FROM OTHER LEOPRD

ELEVATION

RANGE: 3000-8300 FT.

COUNTIES: SANTA CRUZ, APACHE, GILA, PIMA, COCHISE, GREENLEE, GRAHAM, YAVAPAI, COCONINO, NAVAJO

HABITAT: STREAMS, RIVERS, BACKWATERS, PONDS, AND STOCK TANKS THAT ARE FREE FROM INTRODUCED FISH
AND BULLFROGS

REQUIRE PERMANENT OR NEARLY PERMANENT WATER SOURCES. POPULATIONS NORTH OF THE GILA RIVER ARE
THOUGHT TO BE CLOSELY-RELATED, BUT DISTINCT, UNDESCRIBED SPECIES.



JANE DEE HULL
GOVERNOR

Arizona
State Land Department

1616 WEST ADAMS
PHOENIX, ARIZONA 85007



J. DENNIS WELLS
STATE LAND COMMISSIONER

February 25, 1998



Ronald Schreier, P.E.
Gannett Fleming, Inc.
3001 E Camelback Road
Suite 130
Phoenix Arizona 85016-4498

RE: Winslow - Lindbergh Regional Airport Master Plan

Dear Mr. Schreier:

Because there are no State Trust lands involved with the referenced project, the State Land Department has no requirements that need to be met.

Thank you for notifying us.

Sincerely,

William Dowdle, Manager
Environmental Resources & Trespass Section

WD/ga

THE STATE



OF ARIZONA

GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4399 (602) 942-3000

www.gf.state.az.us

HC 66 Box 57201, Pinetop, AZ. 85935 (520) 367-4281

Governor
Jane Dee Hull

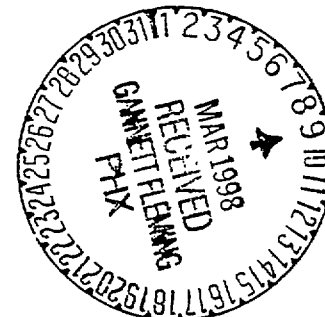
Commissioners:
Chairman, Herb Guenther, Tacna
Michael M. Golightly, Flagstaff
William Berlat, Tucson
M. Jean Hassell, Scottsdale
Dennis D. Manning, Alpine

Director
Duane L. Shroufe

Deputy Director
Thomas W. Spalding

March 5, 1998

Mr. Ronald Schreier, P.E., Project Manager
Gannett Fleming, Inc.
Suite 130
3001 East Camelback Road
Phoenix, AZ 85016-4498



RE: Winslow-Lindbergh Regional Airport Master Plan, GF #31814

Dear Mr. Schreier:

The Arizona Game and Fish Department (Department) has reviewed the proposed Master Plan for the Winslow-Lindbergh Regional Airport (Airport) for the purpose of identifying environmental issues related to future development projects.

The Department's Heritage Data Management System has been accessed and current records show that the special status species listed below has been documented as occurring in the project vicinity.

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>STATUS</u>
roundleaf errazurizia	<i>Errazurizia rotundata</i>	SR

STATUS DEFINITIONS

SR - Salvage Restricted. Those Arizona native plants not included in the Highly Safeguarded Category, but that have a high potential for theft or vandalism, as described by the Arizona Native Plant Law (1993).

The Department recommends that you contact the Arizona Department of Agriculture, at the address listed below, for additional information regarding Arizona Native Plant Law and potential restrictions which may apply to the salvage or removal of species noted above as "SR."

Mr. James McGinnis, Manager, Native Plant Law
Plant Services Division
Arizona Department of Agriculture
1688 W. Adams St.
Phoenix, AZ 85007-2617
Telephone: (602) 542-4373

Mr. Ronald Schreier, P.E.

March 5, 1998

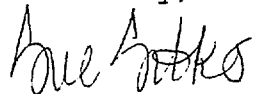
2

The Department understands that the Airport Master Plan project covers a period of twenty years, beginning in 1997. It appears that proposed construction projects within existing boundaries or future land acquisitions of the Airport complex will occur in an area with adjacent residential and industrial development. As such, the Department does not anticipate any long-term adverse impacts to wildlife resources from the implementation of this plan.

The Department anticipates that future construction projects, when implemented, will undergo project-specific environmental evaluation procedures. As such, site-specific comments will be provided during implementation phases.

The Department appreciates the opportunity to comment on the Winslow-Lindbergh Regional Airport Master Plan. If you have any questions, please contact the Pinetop Regional Office at (520)367-4281.

Sincerely,



Sue Sitko
Habitat Specialist

cc: Barb Heslin, Project Evaluation Specialist
James McGinnis, Arizona Department of Agriculture
Ken Clay, Wildlife Manager

Log #02-13-98(06)

ARIZONA DEPARTMENT OF WATER RESOURCES

FLOOD MITIGATION SECTION

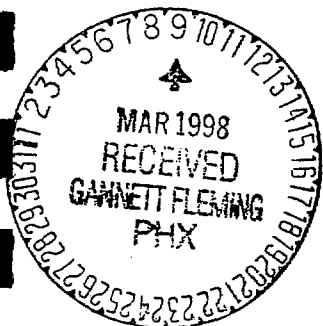
Park Place at Arizona Center
500 North 3rd Street, Phoenix, Arizona 85004
Telephone (602) 417-2445
Fax (602) 417-2423



JANE DEE HULL
Governor

RITA P. PEARSON
Director

March 6, 1998



Mr. Ronald D. Schreier, P.E.
Project Manager
Gannett Fleming
Suite 130, 3001 E. Camelback Road
Phoenix, AZ 85016-4498

Re: Winslow-Lindbergh Regional Airport Master Plan, Job No. 31814

Dear Mr. Schreier:

The project information forwarded with your letter of February 11, 1998, has been reviewed for floodplain management purposes. The airport and surrounding area is located in a 100-year floodplain. All development should comply with the City of Winslow's flood damage prevention ordinance.

If you have any questions, or if we can be of further service, please don't hesitate to contact our office.

Sincerely,

A handwritten signature in cursive script that reads "Terri Miller".

Terri Miller
Program Coordinator

cc: Mr. John Roche, City of Winslow



Arizona Department of Transportation

Aeronautics Division

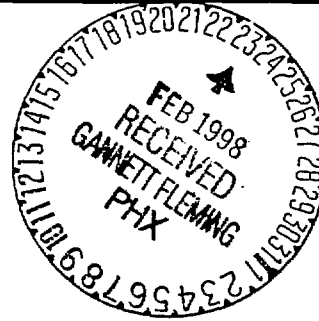
P. O. Box 13588 Mail Drop 426M, Phoenix, AZ 85002-3588
Office (602) 254-6234 Fax (602) 254-6361



Jane Dee Hull
Governor

February 18, 1998

Ronald D. Schreier, Vice -President
GANNETT FLEMING, INC.
3001 East Camelback Road, Suite 130
Phoenix, Arizona 85016-4498



Larry S. Bonine
Director

Gary Adams
Division Director

Re: Winslow-Lindbergh Regional Airport - Environmental Issues

Dear Ron:

Your letter soliciting comments on the Airport Master Plan for Winslow-Lindbergh Regional Airport was forwarded to us for comment. Incidentally, unless the Master Plan contains possible/potential impacts on State roads/highways, we would suggest you leave ADOT Environmental Planning Services off the coordination list for airport master plan environmental evaluations.

Our comments are not environmentally oriented so this letter does not have to be included in the environmental chapter of the Master Plan. We did not critique the entire document, however, we wish to point out three major points in the document that should be reviewed if they are also a part of the Master Plan.

A. Comparative Costs for Development Alternatives (page 5-4): Use of the terminology "ADOT will provide funding....." is a poor choice of wording and may lead the reader/sponsor to believe something that may or may not be true. The consultant cannot evaluate and determine what ADOT will or will not fund, they can only indicate a potential for funding.

B. Aircraft Noise (page 6-4, 6-5): ADOT Aeronautics does not " require that the 55 Ldn contour be generated.....". We have recommended, on some occasions, to selected airports, that they could use the 55 Ldn noise contour for a guide as to how much land area around an airport should be protected from residential development. We have never required any airport to use this methodology. There other equally appropriate guidelines to use for this purpose such as the traffic pattern airspace, section/jurisdictional boundaries, etc. Each airport has different surroundings and no one method may be appropriate for any one airport. Each case has to be evaluated on its own merits. Please eliminate this sentence from the text.


C. Aircraft Noise (page 6-5): The last two paragraphs refer to ".....activity will be compressed.....". We have no idea what this means and believe a more descriptive phrase is required.

Mr. Ron Schreier
February 18, 1998
Page 2

D. It was noted that there was no discussion of land use recommendations in this document which we feel would have been especially appropriate in an environmental document. We anticipate that this subject will be covered in some detail in the Master Plan.

Thank you for the opportunity to comment.

Sincerely,


Ray Boucher
Aviation Program Analyst

cc: John Roche, City of Winslow, 21 Williamson Avenue, Winslow, AZ 86047

SHELDON R. JONES
Director



Exhibit 7

JACK PETERSON
Acting Associate Director

Arizona Department of Agriculture

1688 West Adams, Phoenix, Arizona 85007
(602) 542-4373 FAX (602) 542-0999
PLANT SERVICES DIVISION

March 12, 1998

Gannett Fleming, Inc.
Ronald D. Schreier, P.E.
Project Manager
Suite 130
3001 East Camelback Road
Phoenix, AZ 85016-4498

RE: Winslow-Lindbergh Regional Airport
Master Plan
GF Job No. 31814
Environmental Issues

Dear Mr. Fleming:

The Arizona Department of Agriculture has reviewed the referenced material.

Based on the information provided, the project is not expected to have any significant adverse impact to protected plant species. The Department recommends that if any protected plants exist on site, they be avoided or transplanted, preferably on site.

We appreciate the opportunity to review the proposed action. If you need additional information, please contact me at 602/542-3292.

Sincerely,

A handwritten signature in cursive script, reading "James McGinnis".

James McGinnis
Chief Enforcement Officer
Native Plants/Antiquities

JM:clw





March 16, 1998

Ronald D. Schreier, P.E., Project Manager
Gannett Fleming, Inc.
3001 E. Camelback Road, Suite 130
Phoenix, Arizona 85016-4498



RE: Winslow; Winslow-Lindbergh Regional Airport Master Plan; City of Winslow, Navajo County, and FAA

Jane Dee Hull
Governor

**STATE PARKS
BOARD MEMBERS**

Chairman
Joseph H. Holmwood
Mesa

Members
Ruth U. Patterson
St. Johns

Sheri J. Graham
Sedona

Vernon Roudebush
Safford

Walter D. Armer, Jr.
Benson

William G. Roe
Tucson

J. Dennis Wells
State Land
Commissioner

Kenneth E. Travous
Executive Director

Charles R. Eatherly
Deputy Director

1300 West Washington
Phoenix, Arizona 85007

Tel & TTY: 602-542-4174
1-800-285-3703
from (520) area code
<http://www.pr.state.az.us>

General Fax:
602-542-4180

Director's Office Fax:
602-542-4188

Dear Mr. Schreier,

Thank you for consulting our office regarding the preparation of the above-referenced master plan. I have reviewed the information submitted and offer the following comments, as you requested, concerning applicable environmental laws and permits.

1. Your information packet includes information and maps describing the existing facility and proposed development. A portion of the plan as submitted deals with historic preservation issues, recognizing that at least two of the structures at the airport, the Terminal Building and the T.A.T. Hangar, are probably eligible for inclusion on the National Register of Historic Places.
2. Several state and federal laws concerning historic preservation may apply to the proposed development. For example, National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA) apply if any aspect of the planning or development process involves a permit or license from a federal agency such as FAA, federal funding, or loan guarantee. Both of those laws require the agency (and thus the permit, license, or grant applicant) to consider the impact of the project on cultural resources (for example: archaeological sites, historic buildings and structures, and places of cultural significance to Native Americans). Likewise, the State Historic Preservation Act applies to lands owned or controlled by the State of Arizona, and projects funded or permitted by state agencies. All of these laws require the agencies involved to consult with the State Historic Preservation Office in the process of identifying cultural resources and considering project effects on those resources. State law also covers the discovery of archaeological and human remains on county and municipal lands and their subsequent treatment, and the accidental or intentional disturbance of human remains and funerary objects on private land.

Thus, an important part of the planning process should be the identification of cultural resources within the development area, including lands to be acquired or leased. I encourage you to proceed with formally evaluating and nominating the Terminal

Letter to R. Schreier, 3/16/98

Page 2

Building and the T.A.T. Hangar to the National Register; however, a part of that process should be an evaluation of all existing facilities. Other features dating to the early history of the airport may be preserved. The impact of any improvements on all eligible properties should be assessed during the planning process. I also recommend that any previously undeveloped land, including but not limited to new acquisitions, should be surveyed in order to locate archaeological resources that might be affected by planned improvements. Attached is a list of consultants who could do the work.

Finally, I strongly recommend that you review the Master Plan and the impacts of its components with Bob Frankeberger, SHPO architect. He will be able to advise you on rehabilitation of the historic structures so that their historic integrity is retained. I am enclosing a copy of the Secretary of the Interior's Standards for Rehabilitation for your information.

If you have questions after you review this information, or if you need additional information about particular aspects of the review process, please call me at (602) 542-7137; Mr. Frankeberger may be reached at 542-6943.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carol Heathington".

Carol Heathington
Compliance Specialist
State Historic Preservation Office

c: Bob Frankeberger, SHPO

**ARIZONA SHPO ARCHAEOLOGICAL AND ETHNOGRAPHIC
CONSULTANTS LIST**

(Revised March 09, 1998)

**--THIS LIST IS NOT A COMPREHENSIVE LIST OF QUALIFIED
CONSULTANTS IN THE STATE OR AN OFFICIAL ENDORSEMENT
BY THE SHPO--**

CRITERIA FOR INCLUSION ON THIS LIST:

- 1) Firm or individual must be based in or have an office in Arizona.
Note: The SHPO does maintain a file on out-of-state firms that is available to the public upon request.
- 2) Firm or individual must meet the Secretary of Interior's Standards for professional qualifications.
- 3) Firm or individual must have successfully completed a project reviewed by the SHPO within the last 5 years.
- 4) Firm or individual must have submitted a written request to be on the list and documentation of professional qualifications to the SHPO.

Archaeological Consulting Services, Ltd., Attn: Margerie Green, Ph.D.
424 W. Broadway Road, Tempe, AZ 85282. Phone: (602) 894-5477.
Fax: (602) 894-5478.

Archaeological Research Services, Inc., Attn: Lyle M. Stone, Ph.D.
2123 South Hu-Esta Drive, Tempe, AZ 85282. Phone: (602) 966-3508.
Fax: (602) 303-0080.

James E. Ayres, Archaeologist
1702 East Waverly, Tucson, AZ 85719. Phone: (520) 325-4435 -or-
(520) 620-1480.

Aztlan Archaeology, Inc., Attn: Laurie V. Slawson, Ph.D.
P.O. Box 44068, Tucson, AZ 85733-4068. Phone: (520) 620-1480.
Fax: (520) 620-1432.

Belagana Research Institute
P.O. Box 44068, Tucson, AZ 85733-4068. Phone: (520) 620-1480.
Fax: (520) 620-1432.

David S. Boloyan, Archaeologist/Ethnologist
P.O. Box 2155, Tempe, AZ 85286. Phone: (602) 858-9563.

Andrew L. Christenson, Archaeological Consultant
746 Redondo Road, Prescott, AZ 86303. Phone: (520) 445-7341.

Cultural & Environmental Systems, Inc., Attn: Mary Lou Heuett
P.O. Box 2324, Tucson, AZ 85702-2324. Phone: (520) 622-2782.
(Same as Phone #) Fax: (520) 622-2782.

Dames & Moore, Inc., Attn: J. Simon Bruder, Ph.D.

7500 N. Dreamy Draw Drive, Suite 145, Phoenix, AZ 85020.

Phone: (602) 371-1110.

Fax: (602) 861-7431.

Desert Archaeology, Inc., Attn: William H. Doelle, Ph.D.

3975 N. Tucson Boulevard, Tucson, AZ 85716.

Phone: (520) 881-2244.

Fax: (520) 881-0325.

Gila River Indian Community, Cultural Resource Management Program

Post Office Box E, Sacaton, AZ 85247.

Phone: (520) 562-3301.

Fax: (520) 562-4008.

Howard Archaeological Surveys, Jerry B. Howard, Principal

3302 N. Salida del Sol, Chandler, AZ 85224. Phone: (602) 345-2185, and/or
(602) 644-3428.

Kinlani Archaeology Ltd, Cultural Resource Consultants, Attn: Deborah Dosh

P. O. Box 67, Flagstaff, AZ 86002.

Phone: (520) 526-9797.

Fax: (520) 527-9797.

Robert A. Larkin, M.S., M.A., SFC Engineering

7776 Pointe Parkway West, Suite 290, Phoenix, AZ 85044. Phone: (602) 438-2200.

Fax: (602) 431-9562.

Northland Research, Inc.,

(Flagstaff) P.O. Box 1401, Flagstaff, AZ 86002.

Phone: (520) 774-5057.

Attn: William S. Marmaduke, Ph.D.

Fax: (520) 774-3089.

(Tempe) 2308 S. Rural Road, Tempe, AZ 85282-2425. Phone: (602) 894-0020.

Attn: Ms. Johna Hutira

Fax: (602) 894-0957.

Old Pueblo Archaeology Center, Attn: Allen Dart, Executive Director

1000 E. Fort Lowell Road, Tucson, AZ.

Phone: (520) 798-1201.

Fax: (520) 798-1966.

Mailing Address: P.O. Box 40577, Tucson, AZ 85717-0577.

P.A.S.T. - Professional Archaeological Services & Technologies

5036 Golder Ranch Road, Tucson, AZ 85739-9602.

Phone: (520) 825-3536.

Fax: (520) 825-2636.

Pima Community College, Archaeology Centre, Attn: David V.M. Stephen, Director/Professor

2202 W. Anklam Road, Tucson, AZ 85709-0001.

Phone: (520) 884-6022.

Plateau Mountain Desert Research, Attn: Donald E. Weaver, Jr.

P.O. Box 3463, Flagstaff, AZ 86003. Phone: (520) 779-3274.

Dr. Glen E. Rice, Head, OCRM/Department of Anthropology

Arizona State University, Box 872402, Tempe, AZ 85287-2402. Phone: (602) 965-7181.

Rincon Archaeology/SEC, Inc., Attn: Noel Logan/Sarah Horton

(Rincon) - P.O. Box 2783, Sedona, AZ 86339.

Phone: (520) 282-1544.

(SEC) - 20 Stutz Bearcat #6, Sedona, AZ 86336.

Phone: (520) 282-7787.

Fax: (520) 282-0731.

(OVER)

Roadrunner Archaeology & Consulting, Attn: K. J. Schroeder
725 West 12th Street, Tempe, AZ 85281-5460. Phone: (602) 921-4055.

Scientific Archeological Services, Attn: James B. Rodgers, P.I.
2542 W. Monterey Way, Phoenix, AZ 85017-5104. Phone: (602) 257-8398.
Note: Same as Phone # -- Fax: (602) 257-8398.

Soil Systems, Inc. (SSI), Attn: Cory Dale Breternitz, President
1121 North 2nd Street, Phoenix, AZ 85004. Phone: (602) 253-4938.
Fax: (602) 253-0107.

Statistical Research, Attn: Jeffrey H. Altschul, Ph.D.
2500 N. Pantano, Suite 218, P.O. Box 31865, Tucson, AZ 85751.
Phone: (520) 721-4309.
Fax: (520) 298-7044.

SWCA, Inc. Environmental Consultants
(Flagstaff) 114 N. San Francisco Street, Suite 100, Flagstaff, AZ 86001.
Attn: David H. Greenwald. Phone: (520) 774-5500.

(Phoenix) 2512 E. Thomas Road, Suite 4, Phoenix, AZ 85016.
Attn: Douglas R. Mitchell. Phone: (602) 956-7323.
Fax: (602) 956-4857.

(Tucson) 343 S. Scott Avenue, Tucson, AZ 85701.
Attn: Mr. Tom Euler. Phone: (520) 325-9194.
Fax: (520) 325-2033.

Tierra Right Of Way Services, Ltd., Attn: John P. Carpenter, P.I.
700 W. Prince Road, Suite 100, Tucson, AZ 85705. Phone: (520) 888-6887.
Fax: (520) 888-7012.

Ethnography Only

Institute of the North American West, Attn: T. J. Ferguson
5000 W. Placita de los Vientos, Tucson, AZ 85745. Phone: (520) 743-3229.

Scott C. Russell, Ph.D., Anthropologist/Ethnohistorian
6323 W. Jasper Drive, Chandler, AZ 85226. Phone: (602) 785-7589.

ARIZONA SHPO HISTORIC PRESERVATION
CONSULTANTS LIST

(Revised August 18, 1997)

**--THIS LIST IS NOT A COMPREHENSIVE LIST OF QUALIFIED
CONSULTANTS IN THE STATE OR AN OFFICIAL ENDORSEMENT AND
DOES NOT IMPLY QUALITY OF WORK PERFORMANCE
BY THE SHPO--**

The Acacia Group, Inc., Attn: Walter Rogers, ASLA, Principal
6842 E. Tanque Verde Road, #D, Tucson, AZ 85715-5328. Phone: (520) 290-9289.

AA&P - Adams Architecture & Planning, Inc., Attn: Steven C. Adams, AIA
118 S. Pleasant Street, Suite 201, Prescott, AZ 86303. Phone: (520) 778-5913.
FAX: (520) 778-6313.

Alliance Architects, L.L.C., Attn: Bob Graham, AIA
2601 North Third Street, Suite 308, Phoenix, AZ 85004. Phone: (602) 274-9777
FAX: (602) 274-4147.

Michael F. Anderson
HCR 1 Box 1216, Strawberry, AZ 85544. Phone: (520) 476-4597.

Archaeological Research Services, Inc., Attn: Dr. Lyle M. Stone, President
2124 S. Mill Avenue, Tempe, AZ 85282. Phone: (602) 966-3508.

Archaeology International, Attn: Charles A. Hoffman, Anthropologist
545 Hotevilla Trail, Flagstaff, AZ 86001. Phone: (520) 525-9088.
- or - ***Charles A. Hoffman***, Anthropologist, Dept. of Anthropology
Northern Arizona University, Box 15200, Flagstaff, AZ 86011. Phone: (520) 523-6575.
FAX: (520) 523-9135.

The Architecture Company, Attn: Richard Fe Tom, AIA President
2625 N. Silverbell Road, Tucson, AZ 85745. Phone: (520) 622-4506.

Arizona History Associates, Attn: Alex J. Kimmelman
1131 E. Spring Street, Tucson, AZ 85719. Phone: (520) 882-6648.

Arizona Preservation Consultants, APCON, Attn: Pat H. Stein
2124 N. Izabel Street, Suite 100, Flagstaff, AZ 86004. Phone: (520) 214-0375.

Burford & Russell, Architects
412 N. Washington Street, Prescott, AZ 86301. Phone: (520) 778-5610.
FAX: (520) 717-0650.

Christopher Brozek, Architect/Engineer
1212 North Sawtelle Ave., Tucson, AZ 85716. Phone: (520) 326-3502.

BRW, Inc., Attn: Teresa Steimle
3003 N. Central Avenue, Suite 700, Phoenix, AZ 85012. Phone: (602) 234-1591.

Nancy L. Burgess, Preservation Consulting
P. O. Box 42, Prescott, AZ 86302. Phone: (520) 445-8765.

ARIZONA HISTORIC PRESERVATION CONSULTANTS - Page 2

CDG Architects, Attn: Stan Schuman

345 East Toole Ave., # 202, Tucson, AZ 85701.

Phone: (520) 629-9752.

Ralph Comey, AIA/Architects

800 N. Swan Road, Suite 111, Tucson, AZ 85711-1274.

Phone: (520) 795-1191.

FAX: (520) 325-7252.

Craig Associates, Architects P.C., Attn: Robert A. Craig, President

8633 N. 56th Street, Suite 100, Scottsdale, AZ 85253.

Phone: (602) 998-8686.

Deutsch Associates, Attn: Lysa Romain

2929 North 44th Street, Suite 320, Phoenix, AZ 85018.

Phone: (602) 840-2929.

Gerald A. Doyle & Associates, Architects

4331 North 12th Street, Phoenix, AZ 85014.

Phone: (602) 264-3082.

Durrant Architects, Attn: Karl E. Derrah, AIA

426 N. 44th Street, Suite 300, Phoenix, AZ 85008.

Phone: (602) 275-6830.

FAX: (602) 275-4331.

IN SITE, Environmental Architecture & Planning, Attn: Ned Daugherty, AIA, ASLA

3752 Wilcox Street, San Diego, CA 92106.

Phone: (619) 226-2953.

Johns and Strittmatter, Inc., Architecture/Planning/Preservation, Attn: Janet H. Strittmatter

3645 N. Camino Blanco Place, Tucson, AZ 85718.

Phone: (520) 577-0058.

Johnson Walzer Associates, Architects

17 N. San Francisco, Suite 3A, Flagstaff, AZ 86001.

Phone: (520) 779-0470.

FAX: (520) 779-5479.

Rick Lewis, Architect

5311 North Glenwood Avenue, Chicago, IL 60640.

Phone: (773) 561-7892.

FAX: (773) 728-6178.

Mona McCroskey, Research Historian/Archivist

P.O. Box 4257, Prescott, AZ 86302.

Phone: (520) 776-4689.

Otwell Associates, Architects, Attn: William Otwell, Architect

121 East Goodwin Street, Prescott, AZ 86303.

Phone: (520) 445-4951.

Past Perfect Historical Environmental Consulting, Attn: Robert R. Weyeneth, Principal

Department of History, University of South Carolina, Columbia, SC 29208.

Public History Center, Attn: Jason H. Gart, M.A., President

1006 West Main Street, Suite 308, Mesa, AZ 85201.

Voice/Fax: (602) 962-9786.

(SEE OTHER SIDE)

Research Services of Santa Fe, Attn: Corinne P. Sze, Ph.D.

1042 Stagecoach Road, Santa Fe, NM 87501.

Phone: (505) 983-5605.

FAX: (505) 986-8438.

Don W. Ryden, AIA/Architects, Inc.

902 West McDowell, Phoenix, AZ 85007.

Phone: (602) 253-5381.

FAX: (602) 253-5389.

SIE - Semmens Investigative Engineering, Consulting Engineers, Robert F. Semmens, P.E.

7640 N. Via De Manana, Scottsdale, AZ 85258

Phone: (602) 596-8299,

(800) 413-2757.

FAX: (602) 596-3365.

Philip Thomason, Thomason & Associates

P.O. Box 121225, Nashville, TN 37212

Phone: (615) 383-0227.

Todd & Associates, Robert A. Mather, Architect

4148 North 48th Street, Phoenix, AZ 85018.

Phone: (602) 840-2795.

van Dijk, Pace, Westlake, Architects, Attn: Paul Westlake, Architect, ---

or - Roger Brevoort, Director of Historic Preservation

5333 North 7th Street, Building C, Suite 123, Phoenix, AZ 85014.

Phone: (602) 212-0451.

FAX: (602) 277-8288.

Effective September 1, 1997 - the new address for van Dijk, Pace, Westlake will be:

One East Camelback Road, Suite 690, Phoenix, AZ 85012.

Phone: (602) 212-0451.

FAX: (602) 212-1020.

White Oak Environmental Alliance, Inc., Attn: M. Colleen Hamilton, Archlgst/Archtl. Historian

Box 9186, Springfield, IL 62791-9186.

Phone: (217) 698-5463.

David Wilson, AIA

646 W. Las Lomitas, Tucson, AZ 85704.

Phone: (520) 887-1446.

Woodward Architectural Group, Attn: James Woodward, Architect

One East Camelback Road, Suite 550, Phoenix, AZ 85012.

Phone: (602) 264-7773.

FAX: (602) 265-0372.

Writers Anonymous, Attn: Vita Richman or Jordan Paul Richman, Principals

1302 E. Coronado Road, Phoenix, AZ 85006.

Phone: (602) 256-2830

THIS IS NOT AN OFFICIAL LIST. It is not a comprehensive listing nor an official endorsement and does not imply quality of work performance.

The Secretary of the Interior's
**Standards for
Rehabilitation**

Revised 1990



U.S. Department of the Interior
National Park Service
National Center for Cultural Resource
Stewardship & Partnerships
Heritage Preservation Services
Washington, DC

The Secretary of the Interior is responsible for establishing standards for all national preservation programs under Departmental authority and for advising federal agencies on the preservation of historic properties listed in or eligible for listing in the National Register of Historic Places.

The Standards for Rehabilitation address the most prevalent historic preservation treatment today: rehabilitation. Rehabilitation is defined as the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values.

The Secretary of the Interior's Standards for Rehabilitation

The Standards that follow were originally published in 1977 and revised in 1990 as part of Department of the Interior regulations (36 CFR Part 67, Historic Preservation Certifications). They pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and the interior of historic buildings. The Standards also encompass related landscape features and the building's site and environment as well as attached, adjacent or related new construction.

The Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Note: To be eligible for federal tax incentives, a rehabilitation project must meet all ten Standards in 36 CFR 67.

Certain treatments, if improperly applied, or certain materials by their physical properties, may cause physical deterioration of historic buildings. Inappropriate physical treatments include, but are not limited to: improper repointing techniques; improper exterior masonry cleaning methods; or improper introduction of insulation where damage to historic fabric would result. In almost all situations, use of these materials and treatments will result in denial of certification. In addition, every effort should be made to ensure that new materials and workmanship are compatible with the materials and workmanship of the historic property.

Tax Act Applications and Preservation Tax Incentive Brochures are available from Technical Preservation Services (TPS), which administers the Preservation Tax Incentives Program in Washington, D.C. Write TPS to request a brochure, and Tax Act application, which includes the Standards for Rehabilitation (36 CFR 67): National Park Service, Heritage Preservation Services Division, Technical Preservation Services, P.O. Box 37127, Washington, D.C. 20013-7127. Applications are also available from State Historic Preservation Offices.

Guidelines to assist property owners, developers, contractors, and federal managers in applying the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67) are also prepared by TPS, as well as case studies that show how the historic rehabilitation tax credit and the low-income housing tax credit may be combined to help fund building rehabilitations. These and other TPS educational publications on preserving, rehabilitating, and restoring historic buildings and landscapes, such as the *Preservation Briefs* series, are available from the Superintendent of Documents, Government Printing Office (GPO). Write TPS at the above address for a free copy of the current *Catalog of Historic Preservation Publications: Guidance on the Treatment of Historic Properties*, which includes stock numbers, prices, and convenient order forms. The Catalog is also posted at <http://www.cr.nps.gov> (select "Publications").

July, 1996



Exhibit 9

United States
Department of
Agriculture

Natural
Resources
Conservation
Service

3003 N. Central Ave.
Suite 800
Phoenix, AZ
85012-2945

Mr. Ronald D. Schreier
Project Manager
Gannett Fleming
Suite 130
3001 East Camelback Road
Phoenix, Arizona 85016-4498



March 30, 1998

Dear Mr. Schreier:


This is in response to your letter dated February 11, 1998 regarding the airport master plan for the Winslow-Lindbergh Regional airport in the city of Winslow, Arizona and our agency's responsibility to farmland protection.

Please accept our apology for the tardiness of this response and that this delay has not caused your firm a major inconvenience in your efforts to identify environmental issues associated with the airport master plan.

The Natural Resources Conservation Service (NRCS) - formerly the Soil Conservation Service - has general responsibility, nationwide, for implementing the Farmland Protection Act (FPPA) and to review projects that may affect prime farmland and/or wetlands associated with agriculture. After staff review the following is noted: 1- the airport master plan, if implemented as planned, is exempt from the requirements of the FPPA - as revised in 1994, that excludes land which is already in or is committed to urban development, currently used as water storage, or land that is not prime or unique farmland, and 2- we do not see any immediate impacts that would directly affect wetland areas associated with agricultural activities.

Thank you for the opportunity to review your project and appreciate your consideration of our agency's responsibilities. Should your office need more specific on-site information technical assistance on dust, erosion, and sediment control, specific soil's and their suitability's, or stormwater management, please feel free to contact our District Conservationist, Scott Ferguson in Holbrook at 520-524-2652 or Community Assistance Coordinator, Jeff Schmidt in Phoenix at 602-280-8818.

Sincerely,



MICHAEL SOMERVILLE
State Conservationist

cc:

Jim Briggs, Assistant State Conservationist-Technology, NRCS, Phoenix, AZ
Scott Ferguson, District Conservationist, NRCS, Holbrook, AZ
Jeff Schmidt, Community Assistance Coordinator, NRCS, Phoenix, AZ



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Governor Jane Dee Hull

Russell F. Rhoades, Director

May 11, 1998

Mr. Ronald D. Schreier, P.E.
Gannett Fleming, Inc.
3001 E. Camelback Rd., Ste. 130
Phoenix, AZ 85016-4498

Dear Mr. Schreier:

Thank you for sending the Airport Master Plan of the Winslow-Lindbergh Regional Airport. I am responding as the Department of Environmental Quality's (ADEQ's) Division of Water Quality Environmental Impact Statement/Environmental Assessment Coordinator. My comments are necessarily limited by the preliminary nature of the project overview. I read the document, and have enclosed for your reference a document entitled "Permits Handbook: A Guide to ADEQ Permits and Approvals." I took the liberty of flagging the pages most directly related to water quality protection. The handbook provides information you need to assess your permitting needs.

Since a federal action, approval by the Federal Aviation Administration, is needed the National Environmental Policy Act (NEPA) of 1969 applies, requiring state certification. As you finalize plans for this project, please submit information adequate to allow the ADEQ to assess the project's impact on water quality. Basic information with respect to water resources are not included in the master planning document:

- Location map showing geographic context of the site relative to nearby communities and roads.
- Watershed map showing context of site with respect to nearest waterways, surface water bodies, intermittent streams, wetlands, wells (irrigation, private and public drinking water, and dry wells), wastewater and drinking water treatment facilities.
- A narrative description of the airport's current and projected water needs, including information on the source(s) of water for drinking and other uses, wastewater management, current and projected wastewater and effluent generation, runoff management, and permits currently held.
- Other land uses downstream and in the water shed, including agricultural, industrial, undeveloped, public lands and habitats, with special attention to identifying wetland or riparian habitats near the site.

Project Information Sheet #2 describes some projections for future airport activity, including the U.S. Forest Service's fire-control operations base. When projecting future fire suppression activity, did your staff consider the potential impacts of global climate change on vegetative ground cover? I ask this out of curiosity, and would like to know what predictive models your staff might have found useful in this respect.

Mr. Ronald D. Schreier, P.E.
May 11, 1998
Page 2

Many pages are missing from my enclosure, including at least figures 1-1 through 1-8, pages 2-1 through 2-35, pages 3-1 through 3-11, figures 3-1 through 3-3, pages 4-1 through 4-19, pages 5-5 through 5-10, and pages 6-1 through 6-3. My comments are necessarily limited to the information provided. This letter transmits my comments, observations, questions, and specific recommendations. These comments pertain only to the information provided.

Activities identified in the immediate term, short term and ultimate term development plans which could have an impact on water quality are listed below. A brief description of potential water quality impacts which might be associated with each activity is provided.

- Pavement reconstruction (immediate term development plan).

During the construction phase, disturbance of the land surface will increase run-off, erosion and sediment loading of receiving waters. These impacts can be mitigated by using techniques to minimize vegetation and land surface disturbance, and by implementing erosion control measures during construction. Without specific information regarding slope changes and drainage improvements, it is impossible to determine if pavement reconstruction will have a permanent positive or negative impact on water quality.

- Lighting system (short term and ultimate term development plans)

During the construction phase, disturbance of the land surface will increase run-off, erosion and sediment loading of receiving waters. These impacts can be mitigated by using techniques to minimize vegetation and land surface disturbance, and by implementing erosion control measures during construction. It is unlikely that lighting installations will have a permanent positive or negative impact on water quality.

- Pavement rehabilitation (short term development plan)

During the construction phase, disturbance of the land surface will increase run-off, erosion and sediment loading of receiving waters. These impacts can be mitigated by using techniques to minimize vegetation and land surface disturbance, and by implementing erosion control measures during construction. Without specific information regarding slope changes and drainage improvements, it is impossible to determine if pavement rehabilitation will have a permanent positive or negative impact on water quality.

- Building renovation (short term and ultimate term development plan)

During the construction phase, disturbance of the land surface will increase run-off, erosion and sediment loading of receiving waters. These impacts can be mitigated by using techniques to minimize vegetation and land surface disturbance, and by implementing erosion control measures during construction. Without specific information regarding slope changes, drainage improvements, and means of handling roof surface runoff, it is impossible to determine if building renovation will have a permanent positive or negative impact on water quality.

Mr. Ronald D. Schreier, P.E.

May 11, 1998

Page 3

- Pavement extension and new pavement (ultimate term development plan)

During the construction phase, disturbance of the land surface will increase run-off, erosion and sediment loading of receiving waters. These impacts can be mitigated by using techniques to minimize vegetation and land surface disturbance, and by implementing erosion control measures during construction. Additional paved surface will impeded water infiltration into the soil and increase runoff. These impacts must be addressed through existing or new stormwater runoff structures. Without specific design information regarding storm drainage, it is impossible to determine if pavement extension and new pavement will have a permanent positive or negative impact on water quality.

- Pavement strenthening (ultimate term development plan)

During the construction phase, disturbance of the land surface will increase run-off, erosion and sediment loading of receiving waters. These impacts can be mitigated by using techniques to minimize vegetation and land surface disturbance, and by implementing erosion control measures during construction. Without specific information regarding slope changes and drainage improvements, it is impossible to determine if pavement strengthening will have a permanent positive or negative impact on water quality.

- Road relocation (ultimate term development plan)

During the construction phase, disturbance of the land surface will increase run-off, erosion and sediment loading of receiving waters. These impacts can be mitigated by using techniques to minimize vegetation and land surface disturbance, and by implementing erosion control measures during construction. Additional paved surface will impede water infiltration into the soil and increase runoff. These impacts must be addressed through existing or new stormwater runoff structures. Without specific design information regarding storm drainage, it is impossible to determine if road relocation will have a permanent positive or negative impact on water quality.

- Building construction (short term and ultimate term development plans)

During the construction phase, disturbance of the land surface will increase run-off, erosion and sediment loading of receiving waters. These impacts can be mitigated by using techniques to minimize vegetation and land surface disturbance, and by implementing erosion control measures during construction. Additional impervious surface will impede water infiltration into the soil and increase runoff. These impacts must be addressed through existing or new stormwater and roof surface runoff structures. Without specific design information regarding storm drainage, it is impossible to determine if new building construction will have a permanent positive or negative impact on water quality.

Mr. Ronald D. Schreier, P.E.
May 11, 1998
Page 4

- Building demolition (short term and ultimate term development plans)

During demolition, dust and debris and disturbance of the land surface by heavy equipment activity could increase run-off, erosion and sediment loading of receiving waters. These impacts can be mitigated by using techniques to minimize vegetation and land surface disturbance, and by implementing erosion control measures during construction. Removal of impervious surface will increase water infiltration into the soil. These impacts will depend on how existing or new stormwater and roof surface runoff structures are used. Without specific design information regarding storm drainage, it is impossible to determine if building demolition will have a permanent positive or negative impact on water quality.

Thank you for keeping me informed of progress in planning this project. I hope this letter provides the information you need to further refine the project plans. If you have any questions about this letter, please contact me at (602) 207-4460.

Sincerely,



Ren Northup, Technical Assistant to the Director
Water Quality Division, ADEQ

cc: Mr. Kurt Harris, P.E., Reuse and Federal Permits Unit, ADEQ

PERMITS HANDBOOK

A GUIDE TO ADEQ PERMITS AND APPROVALS



Arizona Department of Environmental Quality
3033 North Central Avenue
Phoenix, Arizona 85012

WATER QUALITY DIVISION REQUIREMENTS

CLEAN WATER ACT, SECTION 401: STATE WATER QUALITY CERTIFICATION

Purpose:

To ensure that federal activities do not violate state water quality standards when a facility or activity may result in a discharge to waters of the state. ADEQ may also review federal actions for consistency with state-adopted plans and rules. Each review is specific to the proposed project (e.g., bridges, dams, subdivisions, mines, boat ramps or any construction which may cause pollutants to enter waters of the U.S., and/or waters of the state), and the project's site. A State Water Quality Certification is necessary before a permit may be issued by a federal agency. For more information, see the *Clean Water Act, Section 404* and *NPDES, Section 402* pages.

What is required?

Contact ADEQ during preliminary planning for your activity or project to determine if water quality certification is needed. If certification is needed, you will be sent a form requesting specific information, such as the location of your work and areas of disturbance. ADEQ will need a contact name, project description, elevations of land surface at work areas, fill material description, site vegetation plan, USGS topographic maps, photographs of project site and dates of site preparation and construction commencement. Facilities requiring permit approvals by ADEQ may be subject to a consistency review with the applicable local and/or regional Water Quality Management Plan. (See the *208 Consistency Review* page.)

Fees:

There is no ADEQ fee at this time.

Contact:

The ADEQ Engineering Review Desk and ask for a Water Quality Certification Engineer. Call (602) 207-4677 or toll free in Arizona (800) 234-5677, ext. 4677. To discuss the Water Quality Management Plan, please contact the Water Quality Planning Section at (602) 207-4606 or toll free in Arizona (800) 234-5677, ext. 4606.

Time frame:

Review time depends upon the completeness of the information provided to ADEQ, the complexity of the proposed activity, and the sensitivity of the impacted watercourse. Minimum processing time is 20 days; a complex project with changes may take as long as one year.

Exemptions:

Contact ADEQ for the exemptions and general permits which apply to the various Clean Water Act programs under Sections 402 and 404.

Statutory Citations:

A.R.S. §49-221, 49-222, 49-225.

PROCESS FOR A CLEAN WATER ACT, SECTION 401 WATER QUALITY CERTIFICATION

Applicant contacts the ADEQ Water Quality Certification Team for determination of applicability:

NATIONWIDE PERMIT

Applicant is informed that a 401 Certification is required.

Applicant sends project information to ADEQ for review.

ADEQ conducts a 14-day review to determine project compliance with state water quality rules and policies.

If ADEQ determines all standards have been met, a Water Quality Certification is prepared within two months.

ADEQ sends final 401 Certification to the proper federal agency within 30 days.

INDIVIDUAL PERMIT

Applicant is informed that a 401 Certification is required.

Applicant sends projects information to ADEQ for review.

ADEQ conducts a 60-day review to determine project compliance with state water quality rules and policies.

If ADEQ determines all standards have been met, a Water Quality Certification is prepared within four months.

ADEQ sends final 401 Certification to the proper federal agency within 6 months.

WATER QUALITY DIVISION REQUIREMENTS

CLEAN WATER ACT, SECTION 404 PERMIT FOR FILL, EXCAVATION AND LAND CLEARING FOR WATERS OF THE U.S. - ARMY CORP OF ENGINEERS

Purpose:

To protect the chemical, physical, and biological integrity, by overseeing the discharge of fill and the excavation of material from the waters of the state, as well as underlying and adjacent land, including all perennial or intermittent streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, aquifers, springs, irrigation systems, drainage systems and other bodies or accumulations of surface, underground, natural, artificial, public or private water situated wholly or partly in or bordering on the state, from pollutants discharged from a point source.

What is required?

Contact the U.S. Army Corps of Engineers to determine whether a permit is needed. Although these permits are administered jointly by the U.S. Army Corps of Engineers and EPA, ADEQ must review the proposed project for compliance with state water quality standards. A Section 401 State Water Quality Certification from ADEQ is required for all federal permits. (See previous page for details) If, after review of the project, compliance is demonstrated, ADEQ issues a Water Quality Certification Letter. If not, additional information or project redesign will be required before ADEQ can issue its certification. Coordination with ADEQ and the U.S. Army Corps of Engineers is recommended early in the project planning phase.

Fees:

Fees are paid to the U.S. Army Corps of Engineers - \$100 for a corporation, \$10 for an individual, and no charge for a government entity or for a Nationwide Permit.

Contact:

The ADEQ Water Quality Division, Engineering Review Information Desk at (602) 207-4599 for a brochure which explains Section 404 Permits. Call the Engineering Review Unit at (602) 207-4502 for information regarding individual permit review or a specific project. The U.S. Army Corps of Engineers can provide a more detailed guide to watercourse permitting in Arizona. Please call (602) 640-5385.

Time frame:

Processing times for a Section 404 Individual permit ranges between four and twelve months. Cycle time for certifying a Nationwide Permit (more general activities with minimal impact) is between two and ten weeks. The time required depends on the complexity of the project and the workload of the Corps of Engineers. Construction should begin within 30 months of permit issuance.

Exemptions:

Certain emergency reconstruction and various farming activities are exempt from permits. A complete list of exemptions is available from the Corps of Engineers.

Statutory Citations:

40 CFR Parts 230-233 and 33 CFR Parts 320-330.

CLEAN WATER ACT, SECTION 404 PERMIT PROCESS

Applicant submits request for Water Quality Certification.



ADEQ determines whether certification is necessary, waived or issued.



If the project has started prior to submittal of the application, ADEQ determines whether or not enforcement action is necessary, and if so, which agency will be the lead. If enforcement is necessary, actions will be taken to assure that the applicant attains compliance.



ADEQ determines if pre-certification action was taken, and, if so, verifies that the Nationwide Permit terms and conditions are being met. If so, the project is approved.



If the terms and conditions of the Nationwide Permit are not being met, the project will be denied.

WATER QUALITY DIVISION REQUIREMENTS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) - STORM WATER PERMITS

Purpose:

To ensure that discharges meet water quality standards for designated uses by establishing permit requirements for certain industrial and construction activities that discharge storm water. Storm water – including snow melt, surface run-off and drainage – has been shown to be a significant source of water pollution.

What is required?

A person whose facility discharges storm water run-off must obtain a permit from the EPA. Three types of permits are available: (a) the multi-sector general permit for discharges from similar facilities that have organized themselves into groups; (b) individual permits for specific facilities; and, (c) the baseline construction general permit. Applications for general permits involve submittal of a Notice of Intent. This form requests information pertaining to the facility operator, facility/site location, site activity information, project start dates, completion dates, and estimated areas of disturbance if construction is involved. On some occasions, an individual will request an individual permit, and if so, must submit NPDES forms 1 and 2F. This five page form includes: outfall location, improvements, site drainage map, narrative description of pollutant sources, non-storm water discharges, and general discharge information. Contact ADEQ for more detailed information. An important component to the storm water permit program is the preparation and implementation of a storm water pollution prevention plan.

Fees: None.

Contact:

EPA, Region IX at (415) 744-1906. ADEQ Water Quality Division, Engineering Review Information Desk at (602) 207-4677 or toll free in Arizona (800) 234-5677, ext. 4677.

Time frame:

For general permits, the applicant must submit the Notice of Intent form at least 48 hours before the start of industrial activity. Contact ADEQ or EPA for information on processing time. This will vary according to the type of permit you are seeking and the complexity of your facility.

Exemptions:

The program only applies to those facilities defined in 40 CFR §122.26(b)(14) as "industrial activities."

Statutory Citations:

40 CFR Part 122.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER PERMIT PROCESS

There are three different kinds of these permits. A determination must be made regarding which permit applies to your situation:

INDIVIDUAL PERMIT

Applicant submits NPDES forms 1 and 2F to EPA; Contact ADEQ for information on these forms.

EPA drafts the Permit and it is placed on record for Public Notice for 30 days.

If Water Quality standards are met, ADEQ certifies the Permit.

EPA then issues the Permit, at which time the applicant may discharge.

BASE-LINE AND MULTI-SECTOR GENERAL PERMITS

The applicant submits a complete Notice of Intent to ADEQ and EPA. There is a two-day waiting period.

After the waiting period, the applicant may assume the permit has been allowed and may discharge within the parameters of the Base Line General Permit.